Faculty of Economics

HUMAN CAPITAL DEVELOPMENT
Case Study on BENIN Health & Education

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To understand the problems in Sub Saharan Africa, one should step out of its own country and travel through the world. It is not important to go far away, it is very important to keep your look at home. To keep it on the social, political, economic dynamic at home. Only then, as African and citizen, you can bring your experiences back home and try to help people according to your force. BUT! Don't be a fool and hopeful, because at first, nobody will believe and trust you. But also, don't give up trying until they understand and keep together! It may be possible that it will happen after you passed. The important thing is: WHATEVER; IT HAPPENS!

Abstract

This research is on Human Capital Building in Benin (West Africa). Recent literature on development in the least developing countries (LDCs) emphasizes the role of human capital in the process of economic growth and wealth. It seems to indicate that educational and health care/prevention expansion do effectively contribute to output growth and upgraded living standards. There is a well-founded argument to think that a healthy and well-nourished human capital has a substantial impact on industrial development through the improvement of country's capacity and capability to adopt new technologies and generate income. In fact, the link between education, labour, health and nutrition is the main support to build up a stock of human capital for industrialization, technology adaptation/transfer and for the quality of living standard i.e. poverty reduction.

This study will review the cases of the utility of early childhood enrolment, access to health care and nutrition and the return on education investment for labour, income, health and nutrition. Benin's[1] economic and social performances were analyzed mostly in the first decade of the Millennium. This analysis concerns the demographic pressure, the stress on health and education system, earning and self-reliance.

In other step[2], this study will also estimate the relationship between income (out of labour), inequality and accessibility to education, nutrition and health. It establishes that there is an unequal access to basic education, decent nutrition and health care between the poor and non-poor. Household income is an important determinant of access to basic education, nutrition and health. Increase in access to basic education, health care and nutrition can redistribute income faster than increase in lonely household income and might help in reducing income inequality.

Later on, it indicates that income increases with the level of education. It also reviews the cases of income/portofolio sources diversification in the country.

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1 See Benin in chapter I.

2 See **Alabi** Reuben Adeolu "Income distribution and accessibility to primary and secondary schools in Nigeria" Abstract, by Berichte aus dem Weltwirtschaftlichen Colloquium der Universität Bremen, Nr. 113, Juli 2008 ISSN 0948-3829, Abstract. At 11:00 AM, 15th November 2016, under http://www.iwim.uni-bremen.de/publikationen/pdf/b114.pdf

The empirical evidence of some districts in Benin indicates that nearby 30 to 40 % of the population, particularly those living in the North West of Benin, have less[3] diversified portfolio and they are less provided in services. By nutrition, the exploitation of cash crops has put millions of people in danger. The available data indicates that agricultural production decreases progressively since the last two decades. Among the main reasons for food insecurity are economic deterioration, macroeconomic pressures; and price volatility. Due to the lack of technology, traditional methods of exploitation, gender discrimination, inaccessibility of farmland and not at least excessive cash crops, production of food crops has dropped significantly, food prices have mounted up and malnutrition rates have increased.

The focus of this study is to analyze also the distribution of education and health care in Benin. These lower enrolments and lower access to health care and nutrition are marked with regional inequalities, urban, rural, gender and income biases. The distributional analysis of school enrolment and access to health care and better nutrition in the country indicates that primary and secondary school enrolment, use of health facilities and the consumption of balanced food are concentrated in the hand of rich households who are located in the urban areas.

The study will conclude with recommendations. It will try to suggest program needs and policy directions that help the country alleviate the handicaps for building a healthy, well-educated and nourished Human Capital.

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[3] See "Bénin: Document de stratégie pour la réduction de la pauvreté", IMF-Report Nr. 11/307, September 2011, IMF Washington/USA and, "Stratégie de Croissance pour la réduction de la pauvreté (SCRP 2011-2015)", UNDP-Report, UNDP, December 2010, under http://www.bj.undp.org/content/benin/fr/home/library/poverty/publication_334.html.

Contents

List of Tables

List of Graphics

List of Figures

List of Maps

List of Abbreviations

A

AC coordinator agent / Agent Coordinateur
ACE Contract-based Civil Servant / Agent contractuel
ACPB Association of Private Hospitals of Benin / Association des Hopitaux Privés du Bénin
ADAM Departmental Agencies the Health Insurance
AFL–CIO American Federation of Labor and Congress of Industrial Organizations
AIDS Acquired Immune Deficiency Syndrome
ANAM National Agency of the Health Insurance
AOF French West Afrca / Afrique Occidentale Française
APE Permanent Civil Servant / Agent Permanent de l'Etat
ARI acute respiratory infections
ASM School of Medical Assistants / École des Assistants Médicaux

B

B Budget
BCG Bacillus Calmette-Guérin Vaccin
BEP Brevet of Professional Study / Brevet d'Etude Professionnelle
BEPC Brevet of Undergraduate Studies / Brevet d'Etude du Premier Cycle
BESA Socio-Administrative Equipment Budget/Budget d'Equipement Socio-Administratif
BIS Bank for International Settlements / Banque des Réglements Interntionaux
BoI Board of Investment
BMI Body Mass Index
BTC Belgian Development Agency
BTS Diploma of Superior Technology / Brevet de Technicien Supérieur

C

CAFMICRO Central Africa Training Equipment Maintenance of Micro-Computers
CAD OECD Assistant Committee for Development / Comité de l'aide au développement de l'OCDE
CAME Central Drugs Purchasing Agency / Central d'Approvisionnement en Médicaments Essentiels
CASE Civic Action in School Environment / Action civique dans l'environnement scolaire
CBHI Community-Based Health Insurance
CBLE Benin Center for Foreign Languages / Centre Beninois des Langues Etrangeres
CCSE Coordinating Committee Education Sector / Comité de coordination du Secteur de l'éducation
CE1 Elementary I / Cours Elementaire I
CE2 Elementary II / Cours Elementaire II
CEAP and **CAP** teaching Diploma respectively fort he owner of **BEPC** and **Baccalauréat**
CEE/ECE economic account of education /compte économique de l'éducation
CEO Chief Executive Officer
CEPE Certificate of Primary Elementary Study /Certificat d'Etude Primaire Elementaire
CF Community Financing Schemes
CFP vocational training centers / Centre de Formation Professionnelle
CGE Committee of Evaluation Management / Comité de gestion de l'évaluation
CHD departmental/County hospitals /Hopital Départemental
CI Instruction Level / Classe d'Instruction
CINEREA Computer Club in Education and Research in Africa
CLEF-USAID Project
CLR Referenz Local Committee / Comité local de référence
CM1 Average Level I /Cours Moyen I,
CM2 Average Level 2 / Cours Moyen II.
CNAQSS National Committee for Quality Assurance Health Sector / Comité National des Assurances de Qualité dans le Sector Santé
CNHU-KHM National Center of University HospitalCentre National Hospitalier Universitaire
CNSS National Fund for Social Security / Caisse Nationale de la Sécurité Sociale
COGEA Management Committee for CSA / Comité de Gestion d'Arrondissement CSA

COGECS committees' management of health institutions / Comité de Gestion des Centres Sanitaires
COLLÉGE/ Lycée High Schools
CP Preparatory Level / Cours Préparatoire
CPN Ante-Natal Consultations / Consultation Pré-Natale
CPSE Monitoring Committee of the Education Sector / Comité Permanent du Secteur de l'Education
CQM Qualification Certificate of Handcraft / Certificat de Qualification aux Métiers
CQP Certificate of Professional Qualification / Certificat de Qualification Professionnelle
CRS Catholic Relief Services / Services de secours catholiques
CU Unit cost (per pupil) / Coût Unitaire par élève

D

DEA Data Envelopment Analysis / Analyse de l'Enveloppe des Données
DEPOLIPO Declaration of Population Policy / Déclaration de Politique de Population
DDS Departmental Directorate of Health / Direction Départementale de la Santé
DEMP Department of Medical Studies and Para-Medical (Département des Etudes Médicales et Para-Médicales),
DMS Durée Moyenne de Séjour / Average term stay
DPP Ministery of Health Directorate for Planning and Prospective / MS Direction de la Programmation et de la Prospective
DPT Diphterie-Pertussis-Tetanus Vaccin
DSRP Document de stratégie pour la réduction de la pauvreté
DTI Industry Technician Diploma / Diplome de Technicien Industriel
DUT Technological University Diploma / Diplôme Universitaire de Technology

E

ECCD Early Childhood Care and Development
ECE Early Childhood Education
EDS Demographic and Health Survey / Enquete Démographique et de Santé
EDSB-IV = "Enquête Démographique et de Santé du Bénin (EDSB-IV) 2011-2012".
EEZS district health teams / Equipe Executive des Zones Sanitaires
EFS Family and Social Economy / Economie Familiale et Sociale
EFA Education for All / Education Pout Tous
EGE General Convent on Education / Etats Généraux de l'Education
EM Maternal Education / Education Maternelle
EMICoV Integrated and Modular Survey on Households Livelihood Enquête Modulaire Intégrée sur les Conditions de vie des Ménages
ENAM National School of Administration and Magistracy / Ecole Nationale de l'Administration et de la Magistrature
ENI National School of Teachers / Ecole Nationale des Intégrée
ENSI National School of Engineers / Ecole Nationale Supérieure d'Ingénieurs
EP Primary Education / Education du Primaire
EPA schools' association of parents / Association des Parents d'élèves dans les écoles
EPAC Faculty of Agricultural Sciences / École Polytechnique d'Abomey-Calavi
EPSTC Public, scientific, technical and cultural institut / Etablissement Public Scientifique Technique et Culturel
ES Higher Education / Education Supérieur
ESG or **CEG** General Secondary Education / General Education Colleg
ESP Superior Professional School / Ecole Supérieure Professionnelle
ESSD School of Executive Secretary / Ecole des Sécrétaires de Direction
ESTBA School of Biological and Food Technology / Ecole Supérieure des Techniques Biologiques et Alimentaires
ETVA Survey on Transition to Active Life / Enquête sur la Transition vers la Vie Active

F

FADESP Law and Political Science / Faculté de Droit et de Sciences politiques
FAO Food and Agriculture Organization
FASEG Economics and Management / Faculté des Sciences èconomiques et de Gestion
FASM Faculty of Health Sciences / Faculté des Sciences et de la Médecine
F.A.S.T. Science and Technology / Faculté des Sciences et Technologies

FCB Common Fund Budget / Fonds Commun Budgétaire
FCFA Monetary of Financial Community of Africa / Franc de la Communauté Financière de l'Afrique
FLASH Letters, Arts and Humanities / Faculté des Lettres, Arts et Sciences Humaines.
FQL Fundamental Quality Level / Niveau de Qualté Fondamentale
FSI Health Funds of Indigents / Fonds de Santé Indigents
FTP BENIN The portal of the Technical and Vocational Training in Benin

G

GDP Gross Domestic Product / Produit Intérieur Brut
GER Gross enrollment rates / Taux Brut de Scolarisation
GGHE/GGE general government health expenditure
GLE Local Education Group / Groupe Local d'Education
GNI Gross National Income / Revenu national brut

H

HC Human Capital / Capital Humain
HCD Human Capital Development / Développement du Capital Humain
HDI Human Development Index /Idex du Développement Human
HEPS Health Education in Primary School / Éducation sanitaire à l'école primaire
HI Health Insurance
HIPC Heavily Indebted Poor Countries / Pays Puvres Très Endettés
HIV Humane Immundefizienz-Virus
HOMEL Mother & Child Hospital / Hopital de la Mère et de l'Enfant
HR Hotel and Catering / Hotel et Restauration

I

IAU International Association of Universities
IEC Information-education-Communication / Information- education et Communication
IESB High Education Institut of Benin / Institut d'Enseignement Supérieur du Bénin
IHP + International Health Partnership Plus
IIEP-UNESCO International Institute of Educational Planning
ILO International Labour Office
IMF International Monetary Fund / FMI Fonds Monétaire International
INJEPS National Institute of Youth, Sports and Physical Education / Institut Ntional de la Jeunesse, Éducation Physique et Sport.
INSAE National Institute of Statistics and Economic Analysis / Institut National de Statistique et d'Administration Economique
INSEE National Institute of Education Sciences / Institut National des Sciences Educatives
IQ Intellectual Quotient / Quotien Intellectuel
ITB Industrial Training Board
ITNs Insecticide Treated Nets
ITS industry training scheme
IS informal sector
IUT University Insttut of Technology / Institut Universitaire de Technologie
IUTG University Institute of Technology and Management / Institut Universitaire de Technologie et de Gestion

L

LDCs Least Developed Countries / Pays les moins avanvés
LEC read - write – count / Lire-Ecrire-Compter
LLINs Low long-lasting insecticide nets / Bas moustiquaires imprégnées d'insecticide longue durée
LMD Bachelors, Masters, Doctorate / Licence-Maitrise-Doctorat

M

M&R Maintenance and Repair / Maintenance et Réparation
MBOURS Amount of grant/Scolarship / Montant des Bourses
MCAT Ministry of Culture, Handicrafts and Tourism
MDGs Millennium Development Goals / Objectif du Développement du Millénaire

MENRS Ministry of National Education and Scientific Research / Ministère de L'education Nationale et de la Recherche Scientifique
MEPS Ministry of Primary and Secondary Education
MESRS Ministry of Higher Education and Scientific Research
MISP School of Industrial Mechanics
MOE Ministry of Education
MoM Ministry of Mine in Benin / Ministère des Mines du Bénin
MS Ministry of Health / Ministère de la Santé
MSE Teacher salarial mass / Masse Salariale des Enseignants
MSME micro-, small-, medium sized enterprises
MSNE Non-Teachers salarial mass / Masse Salariale des Non-Enseignants

N
NBOURS Number of granted students / Scholars / Nombre des Boursiers
NEL Number of Students / Nombre d'élève/Étudiants
NENS Number of Teachers / Nombre d'Enseignants
NGO-CAEB Council of Educational Activities of Benin / Conseil des Activités Educatives du BENIN (CAEB)
NGOs Non-Government Organisations /Organisations Non-Governementaux
NONENS Number of non-teachers / Nombre des Non-Enseignants

O
OECD countries Organisation for Economic Co-operation and Development
ORS orally rehydration salts
ORT oral rehydration treatment

P
PEDFONC Mass of Teaching and Operating Expenses
PEDFONCU Educational and unitary function expenditure / Fonction unitaire et education-nelle des Dépenses
PDDSE Decennial Plan of Development in Education Sector in Benin / Plan Decennal De Developpement Du Secteur De l'Education
PENGOP Primary Education NGO / ONG de L'Education Primaire
PERAC Public Expenditure Reform Adjustment Credit
PF family planning / Planing Familiale
PHI Private Health Insurance
PIP Pluri-anno Programm of Investment / Programme d'Investissement Pluriannuel
PIP Public Investment Program / Programme d'Investissement Public
PMA minimum activity package
PME Global Partnership for Education / Partenaire Global pour l'Education
PMI American Presidential Malaria Initiative
PPP Purchasing Power Parity (US$) / Parité de pouvoir d'achat
PTF technical and financial partners / Partenaires Techniques et Financiers
PTA Annual Work Plan / Plan de Travail Annuel

Q
Q5 Quintile of well-being 5 (the wealthiest quintile)

R
RAMU Regime Assurance Maladie Universelle
REM Pupil-teacher ratio / Rapport élève/maitre
RESEN Rapport d'État du Système Educatif National (RESEN) = State Report of the National Educational System (RESEN)
RENE Ratio Pupil-Non-Teacher / Rapport élève/Non-enseignant
RBF Result Based Financing / Paiement aux Résultats
RC network of community / Réseau Communautaire
R&D Research & Development / Recherche et Développement
ROI return on investment
ROR Rate Of Return

S

SAP Structural Adjustment Programs / Programme d'Ajustement Structurel
SCRP Growth Strategy for Poverty Reduction / Stratégie de Croissance pour la Réduction de la Pauvreté
SEA South East Asia Countries
SEWA Self Employed Women's Association (SEWA)
SMOYENS Average teacher salary / Salaire Moyen des Enseignants
SMOYNENS Average salary of non-teachers / Salaire Moyen des Non-Enseignants
SNIGS Health Information System / System National d'Information et de Gestion de la Santé
SNRI National System for Research and Innovation / System National de la Recherche et l'Innovation
SOC Mass of social spending / Somme des Dépenses Sociales
Songhai Center in Benin is in integrated agra-biological techniques and entrepreneurship.
SONUB Basic Emergency obstetrical Care / Soins Obstetricaux (et Neonataux) d'Urgence de Base
SONUC Comprehensive Emergency Obstetrical Care / Soins Obstetricaux (et Neonataux) d'Urgence Complets
SS Health Sciences / Sciences de la Santé
SSA Sub-Sahara-Africa / Afrique Sub-Sahélien
SSC Service of Community Health / Service de Santé de la Communauté
STA Agricultural Sciences and Technology / Sciences et Techniques de l'Agriculture
STAG Scientific and Administrative Technology and Management
STI - science and engineering / Sciences Techniques et Ingénieurie
STP Permanent Technical Secretariat / Secrétaire Technique Permanent

T

TAA rate of assisted childbirth / Taux d'Accouchement Assisté
TBS Taux Brut de Scolarisation / Gross Enrolment Ratio **GER**
TU Trade Union
TVET Technical Education and Vocational Training / Enseignement technique et formation professionnelle **ETFP**
TVET Ministry Ministry of Technical Education and Vocational Training
TISSA Teacher Training Initiative for Sub-Saharian Africa

U

UAC University of Abomey-Calavi / Université d'Abomey-Calavi
UATS tangible element of STP
UN's United Nations / Nations Unie
UNB Université Nationale du Bénin
UNCTAD United Nations Conference on Trade and Development
UNDP United Nations Development Program
UNESCO United Nations Educational, Scientific and Cultural Organization
UNICEF United Nations International Children's Emergency Fund
UP University of Parakou / Université de Parakou
US Aid United State Aid Fund
USAM University of Applied Science and Management / Université des Sciences Appliquées et Management

V

VV village volunteers / Volontaires des Villages

W

WHO World Health Organisation

Z

ZS Health Distrit / Zones Sanitaire

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Godwill **Moévi-Ames v. Hansburg z. Jagdburg**

Syke, December, 2016

Chapter I: Introduction

1 Benin Overview

1.1 Geographical Facts[4]

1.1.1 Geographical Position

Benin is one of the smallest country in West Africa. It is a presidential republic since its independency on 1st August 1960. On a surface of about 112620 km^2, the population is about 10 million high, concentrated in the South and in the cities. Geographically, it has common boarders with Niger in North, Burkina Faso in North-West, Togo in West, Nigeria in East and the Golf of Benin with the Atlantic Littoral. Its geographical position is between 6 degree 25 and 12 degree 30 North latitude, 0 degree 45 and 4 degree East longitude. The capital of Benin is still Porto-Novo but the government has its seat in Cotonou (the economic capital).

1.1.2 Vegetation

From North to South, Benin has dry savanna vegetation from the littoral of Niger River into the alluvial flatland of the South East and South West, whereas the North West goes into to the chain of Mount from Togo. The highest point lays in Atacora Mount at 658m. The middle of Benin is still stony but with a high grass land adequate for agriculture. The South is humid, over crossed with rivers and lakes. This part of Benin behalves the so-called Tropical Forest with intensive agriculture. Benin is between the Equatorial Rain Forest and the Guinean Landscape in a Subtropical Zone. Rain increases mangroves from North to South.

1.1.3 Population Diversity and Culture

Benin is a "mealting pot" with over 60 different languages and cultures without the ethnic subgroups. The dominant group is that of the FON in South (around

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[4] See Ministry of Culture and Tourism, http://de.wikipedia.org/wiki/Benin, Das aktuelle wissen.de Lexikon.

60 %[5] of the population inclusive Minas, Gouns, Mahis, Adjas, Toffins, Hohlis, Guins, etc.). In South East, we have the Yoroubas with their subgroup the Nagos with about 7 %. They are followed by the Baribas and subethny the Sombas about 16 % in the North near to the Dendis, Pila Pila, Fullahs, and Haoussas. The rest percentage is on a multitude of small ethnic groups from black Africans to white Europeans. Official language also administrative language for all is French.

In religion, Benin has 3 dominances. The North part has the most Islamists, the South has the Christians. Both are more or less adept of the Nature Religion also called "Voodoo".

1.2 The Historical Background[6]

First of all, we have to make a clear difference between DAHOMÉ and DAHOMEY. Dahomé was a kingdom in the territorial middle of actual Benin Republic. This kingdom has given the name Dahomey to the country until 1975, date of the appellation BÉNIN. Benin Republic is also different to Benin State of the Nigerian Federation.

At the beginning, Benin was a country with a myriad of chieftaincies and small kingdoms until the 16th century. They were implicated in periodic ethnic wars with continuous new definite boarders. Suddenly appeared 300 Adja soldiers coming from the actual Mono District, nearby the South West of actual Benin. They came into Allada and settled between the Fon community. From the mid of 17th century, the Adja dominated the community and elected the primus inter paris as the king. According to the history, this first king of Dahomé Kingdom was: Gangnihessou. Twelve[7] kings had followed on the throne. Between 1892 and 1894, the French army constituted by West Africans soldiers has defeated

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5 60 % are the so-called EWE group to which the FON belongs. In Benin, the FON represents about 40-45 % of the total population.

6 See Ministry of Culture and Tourisme, "Le royaume du Dahomé face à la pénétration coloniale 1875-1894" by Luc Garcia, Editions Karthala, Paris, 1988, Archives Nationales de la République du Bénin/Porto-Novo, Ulf Hagemann in, "Das Königreich Dahomey zwischen Sklavenhandel und französischer Kolonie", University of Hannover/Germany, 01-10-2002. http://de.wikipedia.org/wiki/K%C3%B6nigreich_Benin, http://de.wikipedia.org/wiki/Geschichte_Benins, http://de.wikipedia.org/wiki/Dahomey_(K%C3%B6nigreich), http://de.wikipedia.org/wiki/Liste_der_K%C3%B6nige_Dahomeys.

7 The genealogy of all the kings of Abomey can be read under http://de.wikipedia.org/wiki/Liste_der_K%C3% B6nige_Dahomeys.

king Behanzin, so then took over in Dahomey. On 1th August 1960, the country was independent. The political panorama in Dahomey (Benin in 1975) was for Africa the worst example for governance. Within twelve years, the country has got the record of "PUTSH" also called a "*coup d'état" as a mode of governance*.

1.3 Administrative Map of Benin

From 6 departments at the origin (1960), since January 15th, 1999 Benin accounts according to law N°97-028 on the organization's 12 departments[8]. They are: Alibori Atacora, Atlantique, Borgou, Collines, Couffo, Donga, Littoral, Mono, Ouémé, Plateau, and Zou. These departments are divided into 77 municipalities, including three that have special status: Cotonou, Porto-Novo and Parakou. The 77 municipalities are subdivided into 546 districts comprising 3743 villages and city districts, the village being the smallest administrative unit in a ward as well as the city district in urban areas. A process of decentralization of administration, to support community development by the communities themselves is currently underway[9].

1.4 Politic and Economic Brief Overview

The political and economic incredibility and insolvability of the country had lead to the "coup d'état" headed by the late Major M. Kerekou in October 1972. After a short period, he drove the country into a hardcore "Marxim-Leninism" with the East Block (Soviet Union) as support. With the introduction of communist, imperative planification, Benins economy collapsed and by the way, left behind a steady growing foreign and domestic debt, unemployment, corruption, violation of human rights, etc. The deterioration reached its highest in 1980-1988.The regime of Nicephore Soglo was the turn over to the national misery. Since that time, a tiny growth has been achieved. The actual government had settled down a kind of new development program. The aim is to restore basic agriculture (local staple foods, cereals and livestock), to promote adequate manufacturing and industry (different units serving national

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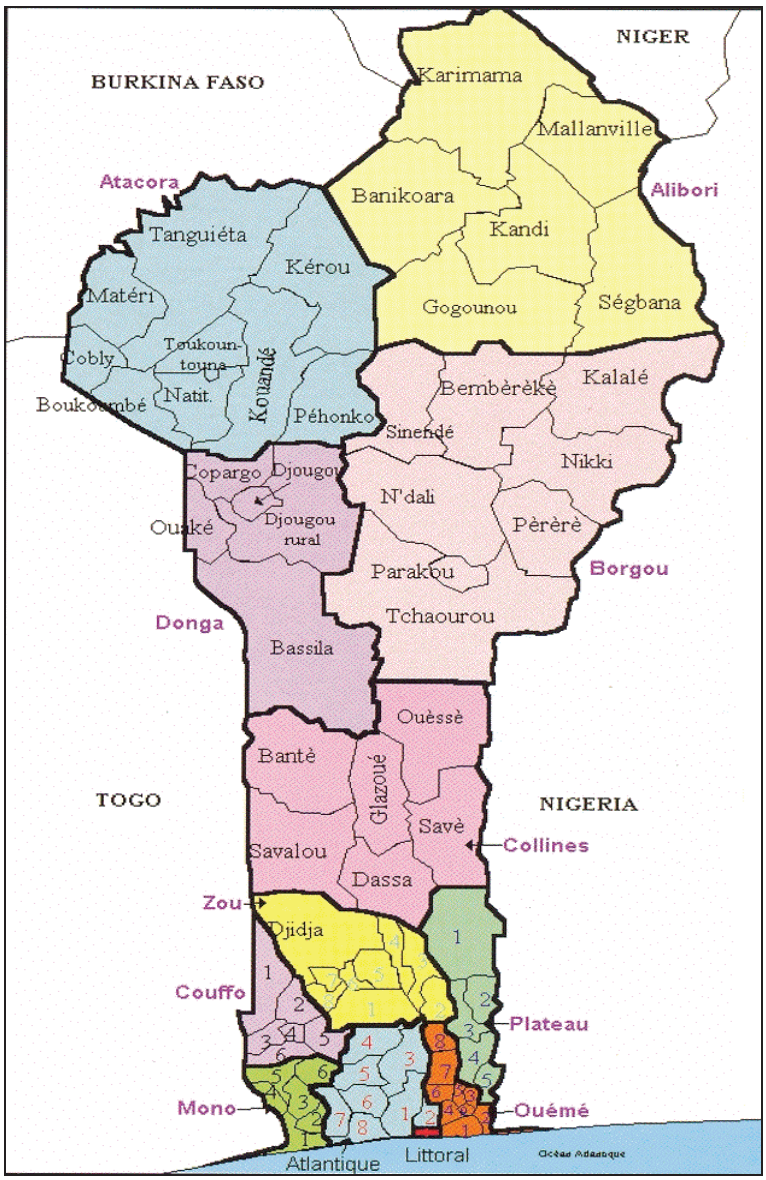
8 See "Report no. AAA51-BJ, by the World Bank, Human Development Africa Region and the Ministry of Health in Benin, May 2009."

9 See EDS 2006 (Demographic Survey and Health 2006).

needs at first), to rehabilitate the infrastructure (development of the road at the cross point country wide, rail from Parakou in North to Niger boarder), to strengthen health facilities and provisions (medical station serving a community of villages), to promote educational enrolments without gender discrimination and adequate sanitation and safe water. Benin government had adopted a poverty reduction strategy paper[10] in autumn 2002 (PRSP) and implemented it in the period from 2003-2005.

Map 1: Benin Administrative Map



Source: Benin Administrative map August 1th 2016 at 18:00 PM under http://www.afrique-planete.com/benin/images/carte-regions-benin.gif.

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10 See "Republic of Benin, national commission for development and the fight against poverty (cndlp), permanent secretariat, program for strengthening the observatory of social change, progress report on the implementation of the prsp 2003", World Bank Dec. 2004.

The incidence[11] of monetary poverty remained almost static (from 29.3 % in 1999-2000 to 28.5 % in 2002, almost the same in the following years). Inequality among the poor worsened at the national level, especially in urban areas where poverty real increase and the goal of cutting poverty by half until 2015 will really hard to be achieved. Nevertheless, notable progresses were done in public finance management and expenditure, particularly in the ministries that are beneficiaries of the Public Expenditure Reform Adjustment Credit (PERAC). In its economic activity, the growth[12] rate in Benin stood at 3.9 % in 2014 but still lagged behind the Poverty Reduction Strategy Goals due to a bad agricultural season and under performance in the secondary sector. In 2016 it is at 6,1 %. After years of slowdown, the country's economy picked up in 2006 and continued in 2007 following the improvement in cotton production, the restoration of trade relations with Nigeria under a Co-prosperity Alliance and the growth in harbour activities. Real growth rose from 2.9 % not **5 %**[13] in 2005 to 3.8 % not **3.5 %** in 2006, was at 4.6 % in 2007 and reach its peak of 5 %[14] in 2008.

Benin experienced[15] a strong fall of GDP in 2009 a 2.7 %, 2010 a 2.6 %, 2011 a 3.3 %. Recovering start in 2012 with 5.4 %, 2013 a 5.6 %, 2014 a 5.5 % and in 2015 a 5.2 %. However, this growth[16] remained below expectations as a result of the energy crisis that hit productive activities early 2007, as well as delays in the implementation of structural reforms, notably in the cotton sector.

In the precedent years, the rate of inflation, which had risen sharply in 2005 (5.4 %) as a result of the prices of foodstuffs and petroleum products, fell to 3.8 % in 2006 thanks to good rainfall that led to increased food production in the sub-region. The tax and customs relief measures introduced by the Gov-

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[11] See "National commission for development and the fight against poverty (CNDLP)" Permanent secretariat, Program for strengthening the observatory of social change, Progress Report on the implementation of the PRSP 2003, December 2004, REPUBLIC OF BENIN, 16th November 2016 at 11:10 AM under http://siteresources.worldbank.org/INTPRS1/Resources/Benin_APR2(Dec-2004).pdf

[12] http://www.tradingeconomics.com/benin/gdp-growth-annual/forecast.

[13] See the, "CIA World Fact book".

[14] See IMF and National Institute of Statistics and Economic Analysis (INSAE).

[15] International Monetary Fund (IMF) World Economic Outlook (WEO) database, Oct. 2014.

[16] See "Republic of Benin: Result-based country strategy paper 2005-2009, Mid-term review report", Country regional department West 1, ORWA, African Development Bank (ADB) July 2008 16th November 2016 at 11:30 AM under http://www.afdb.org/fileadmin/uploads/afdb/Documents/Project-and-Operations/ADB-BD-WP-2008-148-EN-BENIN-RBCSP-2005-2009-MID-TERM-REVIEW-REPORT.PDF

ernment helped to mitigate the impact of the soaring world prices of oil and staple food products on domestic prices[17]. In 2007, the rate of inflation[18] was at 1.29 %, which was below the maximum community standard of 3 %. But in the following years, it has varied. It was at 7.9 % in 2008, falled down to 2.3 % in 2010 and again raised up to 6.8 % in 2012 again for 2014 it says to be at -1.1 % and in 2015[19] at 0.62 %.

Primary, the essence[20] of the program introduced by the government is to reduce poverty and inequality added to substantial macroeconomic performance as for boosting trade and the development of the hinterland. By the way, the most insidious problem of Benin development are corruption, nepotism, clientelism particularly by employment, projects, suppliers of public institutions and agencies. Ranking[21] the 83th least corrupt nation out of 175 countries in 2015, according to transparency International Corruption Perceptions Index, Benin increase from a record low of 25 points in 2006 up to 39 points in 2014 and scored in 2015: 37 points. There is a saisable effort of the government to reach transparency and accountability. In an article of August the 1th 2015, Benin former president Thomas Yayi Boni apologized[22] to the Netherlands for a corruption scandal involving Dutch aid money (at least 4 million euros disappeared) meant to drinking-water-projects. It was soon clear that the social obstacles and the low level of the Human Capital are not the premises for the suc-

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17 "It should be noted that the current upsurge in food prices has brought back the issue of food security to the limelight in Benin. Apart from the short-term tax and customs measures, the Government in December 2007 approved an Emergency Food Security Support Program (PUASA) estimated at CFAF 62.3 billion. The program aims at increasing the production of staple products in the short term, notably through: (i) building the capacities of grassroots organizations; (ii) irrigation schemes; and (iii) intensification and diversification of agricultural production. The African Development Bank has undertaken to support the Government's efforts by restructuring its agricultural portfolio in Benin". See footnote in "Result-based country strategy paper, 2005-2009, Mid-term review report, republic of Benin, country regional department west 1, orwa" prepared by Alain Ekpo, Janvier Litse, and Racine Kane; African Development Bank Group, July 2008.

18 See Benin: Inflation by Global Economy under http://www.theglobaleconomy.com/Benin/Inflation/.

19 See World Bank Data under http://data.worldbank.org/indicator/NY.GDP.DEFL.KD.ZG?locations=BJ&view=chart.

20 See the social and economic indicators of IMF and World Bank 1990-2009.

21 Benin Corruption Index 2004-2016 (Quoted at http://www.tradingeconomics.com/benin/corruption-index).

22 See "Benin President Apologizes to Netherlands Over Corruption Case" by Ahissou Virgile under http://www.bloomberg.com/news/articles/2015-08-01/benin-president-apologizes-to-netherlands-over-corruption-case, see also, "Government and land corruption in Benin" by Sèdagban Hygin F. Kakai, Published by, "The Land Deal Politics Initiative" at PLAAS, University of the Western Cape, South Africa, September 2012.

cess of the program rather they will make it difficult to be implemented. The living standards of the population are the translation of the overall government performances and their impacts on the households, the urban poverty (sizable problems rather than in rural areas), the standards of the majority and on demand and supply of services such as nutrition, health and education.

Large parts of the population have experienced an improvement in their life quality over the years up to the most important Millennium Development Goals (MDGs) such as school enrolment rate, life expectancy, health care. In spite of all, poverty and people living still living under the poverty line remain a latent threat to democracy.

If we do accept that, "the root cause of poverty is not by a person's unwillingness to work, his inability to work, lack of resources to put together or lack of skills. As a matter of fact, a poor person works very hard – harder than others and he or she has more skills and time he/she can use. He/she shoulders the yoke of poverty because he/she does not receive the full worth of his work and his rights in the society… The existing social and economic man-made conditions are selfishly designed in such a way that, it allows this process of grabbing from the poor to continue unperturbed.

Think of an illiterate who will want to keep basic records of his daily commercial activities, think of an illiterate who would want to be trained to develop his skills in any business venture. Think of an illiterate who will want to use a computer, think of an illiterate in our so-called global village who is faced with the latter's challenges, etc. This issue is not a voluntary act or wish of the people to remain illiterates. It is due to their inability to afford for even basic education. It is just that education has never reached their threshold. This has been as a result of poverty and or negligence by those who can afford to provide these basic needs of life"[23].

We can reduce the problem of poverty in Benin in ten points[24].

"1. Almost 40 percent of Benin's population lives below the poverty line.

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23 "The causes and impact of poverty on sustainable development in Africa" by Tazoacha Francis, Executive Director at Action Centre for Rural Community Development (ACERCD), Buea, Cameroon. A Paper Presented at the Conference for, "Poverty and sustainable development" held in Bordeaux, France from November 22-23, 2001, pp. 2-6 under http://ged.u-bordeaux4.fr/sctazoacha.pdf.

24 See Katie Bandera in, "10 Facts about poverty in Benin" for the Borgen Project (NGO) September 15th, 2016, 10 AM under http://borgenproject.org/10-facts-about-poverty-in-benin/.

2. Initiatives supported by the IMF and the World Bank have helped Benin's economy to grow an average of 4.0 percent annually over the past ten years, raising its national per capita income to $780 in 2011.

3. Benin's economy relies mostly on the cotton trade, and agriculture is the main source of income for 70 percent of the country's workforce.

4. Benin's economy is vulnerable not only because it is based primarily on agriculture but also because re-export trade with Nigeria makes up roughly 20 percent of its GDP.

5. There are an average of 58.54 deaths per 1,000 live births in Benin, giving it the 27th highest infant mortality rate in the world.

6. 44.1 percent of Benin's population is fourteen years old or younger.

7. The life expectancy in Benin is 56.5 years, shorter than the life expectancies of 165 other countries.

8. Benin ranks 166th on the UN's Human Development Index out of the 187 countries and territories evaluated.

9. Benin's hospitals provided .5 beds per 1,000 people in 2010.

10. Extreme poverty has caused human trafficking to increase in recent years. Children can be sold to rich families in neighboring countries for as little as $15".

On the probability of achieving the MDGs, the first objective is to eradicate extreme poverty and hunger in Benin. The target[25] is to reduce by 50 % the proportion of the population living under the poverty line by bringing poverty index to 15 % by 2015. The evolution of population living with less than 1.25$/day is 47.3 % in 2003, 51.6 % in 2011 and unlikely 26.7 % expected in 2015.

Despite moderate GDP growth annually between 4 and 5 % over the past two decades, poverty remains resistant to reduction and rather increases in Benin. The national poverty[26] rates of 37.5 % in 2006, 35.2 % in 2009, 36.2 % in 2011 is still of 40.1 % in 2015. But the main one, that of first importance: to de-

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25 "IMF Executive Board Concludes 2015 Article IV Consultation with Benin", Press Release no. 15/565, by the Executive Board of the International Monetary Fund (IMF), December 16, 2015, p. 30, table 7. Benin: Millennium Development Goals, 1990-2015. Under https://www.imf.org/external/pubs/ft/scr/2016/cr1606.pdf.

26 In "BENIN-COUNTRY OVERVIEW", Last updated: Sep 28, 2016, by the World Bank – Washington/USA under http://www.worldbank.org/en/country/benin/overview.

crease the number of people living under the poverty line up to 50 %, has not been met.

2 Research Problem

Poverty and income scarcities have some logical consequences: bad nutrition combined with a lack of access to health care and education: atavistic problems for the development in poor countries in general. Benin (oil and cash crops exporter) was exposed to a rampant Dutch Disease over its dependence to these particular exports products and on external international aids. Furthermore, Benin's economic and social structure has produced a long and still continuous crisis created by its mismanagement of the State Affairs and price volatility of export goods. Cotton[27] is an especially important source of employment and income in Benin, accounting for 63.2 % of its exports. Benin is still having high dependency[28] ending in price volatility from more than $3.00/kg in the 1960s to $1.73 in 2014. This in turn has i.e. weakened the economic and social productivity of the country, especially in health, education, agriculture and in others opportunities for employment, so then for income and welfare.

Government had not tried to build up a kind of auto-centred development economy although the intellectual resources and the administrative framework were, immediately after the independence, available. In the colonial history, Benin was the most intellectually reinforced country of West Africa without a university. The most parts of the personal are Beniner coming back from their offices abroad from other French colonial countries. Today, Benin is confronted with the low quality of its capacity and capability of its administration and management of the State's Affairs. This intellectual haemorrhage was due to the "Marxism-Leninism" of president Kerekou area. Since that time only a small part returns from the diaspora. Benin becomes a country of *"ex-*

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27 See Cotton in, "Commodity briefing: Cotton – Fairtrade Foundation January 2015" and, "Cotton Exporter's Guide 2007" p. 3, by International Trade Centre UNCTA/WTO, Washington/USA.

28 See Cotton prices in real terms 1960-2014 by Real 2010 US$, by Cotlook A Index, World Bank Commodity Price Data.

patriated"[29]. This migration is also periodical and increases exponentially. For instance, between 1975-79 at the high of "Marxism-Leninism", then 1997-2001 a period of restoration in politics and economy, immigration records 55706 to 135053 people. This migration South/North (France) concerns mostly students, a huge competencies exodus in development sector, so then closely connected tot he problematic of development. At this end, Benin has a poor Human Capital Stock. In Benin, early in the 60s, efficiency and progressive amelioration until the end of the 60s were replaced by a rigorous degradation after the "military putsch of 1973". The country sliced from the ongoing middle income states back to the poorest countries i.e. lowest income[30] since the end of the 80s and early 90s. A long period of "gambling" between liberalization, foreign debt adjustment problems, Structural Adjustment Programs (SAP) and other emergency plans did not bring the expected amelioration rather; they had worsening income and employment, so then education, health and nutrition. The "bad governance" reached its highest in the mid of the 80s, where country-wide, social, economic and institutional tissues were disintegrated. The same period of "bad governance" was that of increased poverty, poor education and health care, and of malnutrition as also under nutrition in the whole country. Benin is highly dependent on imported inputs and goods.

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29 See Hamidou BA and Etienne Folabi Kouton in, "Etude sur le profil migration du Bénin", Rapport Final for Coopération Union Européenne – Bénin, Ministère du Développement, de l'Economie et des Finances, Projet d'Appui à l'Ordonnateur National du FED, 9 ACP BEN 012, pp. 22-23, Décembre 2006.

30 See World Bank 2009-2011, Gross National Income (GNI) per Capita for that period and UNDP Report HDI from 1975-2012. We will not slice into an academic discussion9 about the relevance of the HDI but rather try to approach and understand the problem of this research. See: Ambuj D. Sagara, Adil Najam, "The human development index: a critical review", Ecological Economics, vol. 25, no. 3, pp. 249-264, June 1998, McGillivray, Mark, "The human development index: yet another redundant composite development indicator?", *World Development*, vol. 19, no. 10, pp. 1461-1468, Oct. 1991, T.N. Srinivasan, "Human Development: A New Paradigm or Reinvention of the Wheel?", *American Economic Review*, vol. 84, no. 2, pp. 238-243, May 1994, Mark McGillivray, Howard White, "Measuring development? The UNDP's human development index", *Journal of International Development*, vol. 5, no. 2, pp. 183-192, Nov, 2006; Bryan Caplan: Against the Human Development Index Comment Posted Posted May 22, 2009, Library of Economics and Liberty, Rao VVB, 1991. Human development report 1990: review and assessment. World Development, Vol 19 no. 10, pp. 1451–1460, McGillivray M. The Human Development Index: Yet another Redundant Composite Development Indicator? World Development, 1991, vol 18, no. 10:1461-1468, Hopkins M. Human development revisited: A new UNDP report. World Development, 1991. vol 19, no. 10, 1461-1468, Davies, A. and G. Quinlivan (2006), A Panel Data Analysis of the Impact of Trade on Human Development, Journal of Socioeconomics, Farhad Noorbakhsh, "The human development index: some technical issues and alternative indices", *Journal of International Development*, vol. 10, no. 5, pp. 589-605, Dec. 1998.

Since independence and at that time, Benin has recorded the highest unemployment, lowest irregular paid public salary, explosive increase of poverty coupled to a substantial outflow of capital and of intellectual capacities and capabilities. People were forced to find by their own ways out of the dilemma over a significantly diversified source of income away from the main stream and official channel. By doing so, they have supported a kind of "self-welfare". Beniner has a brought in the whole West Africa a system called "débrouillardise"[31] closed to that of DiY to help yourself. One oft hat popular system is the scooter-taxi called *ZEM*. For more information concerning this strategy. The residual[32] Human Capital living in the country at that period was unable to respond to the demand for growth as to the demand of potential industrialization and technology transfer. A new wave of private entrepreneurship and power collusion become ruling methods[33] and are reinforced. The period of national instability, of degradation of institutions, social and economic tissues has showed to decision-makers and policy-designers in the country, the tied relationship[34] between the processes to build up, to develop Human Capital and the bund income, health, nutrition and education. After a long period of dictatorship[35], Benin has not pursued a development strategy that placed priority on the upgrading people living standard by accumulating a well-educated and healthy Human Capital. A Human Capital that is able to serve a certain substitutable capital and work intensive industries. Investments were too often disrupted. Many programs and projects were interrupted during the implementation phases, because of the lack of capital and/or of adequate Human Capital.

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31 At this point, we have to reduce our quotations to the title of literature, because this topic is important enough for a dissertation's thesis. See Jellal, M. and Zenou, Y. in "Ethnic diversity market structure and risk sharing in developing countries", by Al Makrîzî Institut d'Economie, 2006, MPRA (Munich Personal RePEc Archive) Paper no. 38435, at 29. April 2012/08:34, Online at http://mpra.ub.uni-muenchen.de/38435/. Fanny Chauveau in, "Stratégies pour les jeunes défavorisés, Etat des lieux en Afrique francophone subsaharienne" in the frame of, "Stratégies d'éducation et de formation pour les groupes défavorisés" by Institut international de planification de l'éducation/UNESCO, Dec. 1998.

32 See Richard Banégas in "Mobilisations Sociales et Oppositions sous Kérékou", Article of Field Research Jan.-Febr. 1994, financed by Centre d'études d'Afrique noire de Bordeaux, in, "Les contraintes externes et les dynamiques internes des transitions africaines" sustained by le ministère de la Recherche and directed by P. Quantin et J.-F. Médard.

33 See Jean-François Bayart in "L'Etat en Afrique. La politique du ventre", Paris, Fayard, Coll., L'Espace du politique, 2ème édition augmentée, Paris, Fayard, 2006, LXVIII-439 p. Index, (1ère édition 1989, Fayard).

34 See Benin, "Poverty Reduction Strategy Paper" 2002 to 2009.

35 See Richard Banégas in La démocratie, "à pas de caméléon". Transition et imaginaires politiques au Bénin, Paris, Karthala, 2003.

A fundamental improvement and elaboration of a strategy for education, health, employment and income in a well-diversified economy may surely alleviate the most problems[36] of the citizens.

2.1 State of Social System in Benin

If we do have a closer look at the state of the social and education system in Benin, we will notice a remarkable change. There is a proliferation of education and health provision in the private sector in Benin since the return to a simile of democracy and liberalisation[37]. Since the spread of family planning, birth control, the improvement of the low level education of girls, women's access to their own income, there has been a change in the population growth of Benin and in social[38] structures. In the population structure, Benin has a huge amount of young people in relation to the entire population. This youth is very dangerous for a democracy because it must have a future by acquiring enough jobs. If not, the country will be soon confronted with a grassroots' riot because since 2008[39], the IMF is warning West Countries governments on the

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36 See Jean-François Bayart in "*Modes d'organisation de la vie économique et sociale en Afrique de l'Ouest*", Paris, Club de Dakar, 1982, "Tensions et ruptures en Afrique noire", *Politique africaine* 3, septembre 1981 and, "Le pouvoir d'être riche", *Politique africaine* 6, mai 1982.

37 See Jean-François Bayart in, "La voix des acteurs sociaux", *Politique africaine* 1, janvier 1981, pp. 83-84, "La problématique de la démocratie en Afrique noire. La Baule, et puis après?", *Politique africaine* 43, octobre 1991, pp. 5-20. "Argent et pouvoir en Afrique noire", *Projet* 232, hiver 1992-93, pp. 67-70. "Permanence des élites traditionnelles et nouvelles formes de pouvoir", in, "L'Afrique des bourgeoisies nouvelles", *Le Monde diplomatique*, novembre 1981, pp. 17-18. "La démocratie à l'épreuve de la tradition en Afrique subsaharienne", *Pouvoirs*, 129, 2009, pp. 27-44, and Richard Banégas in, "Retour sur une transition modèle. Les dynamiques du dedans et du dehors de la démocratisation au Bénin" in J.-P. Daloz, P. Quantin, (dir.) *Transitions démocratiques africaines,* Paris, Karthala, 1997, pp. 23-94, "Orientations et limites de l'aide française au développement démocratique: Bénin, Congo et République centrafricaine" (en collaboration avec P. Quantin), *Canadian Journal of Development Studies*, 1996, Special issue, pp. 113-134, "Action Collective et changement politique en Afrique. La Conférence nationale du Bénin". Cultures et Conflits, n° 17, printemps 1995, pp. 137-175, "Transitions démocratiques: mobilisations collectives et fluidité politique", Cultures et Conflits , n 12, hiver 1994, pp. 105-140, "Enjeux et paradoxes de la démocratie en Afrique", Questions internationales, n°33, septembre 2008, "Nouvelles figures de la réussite et du pouvoir", Politique africaine, n°82, juin 2001, pp. 5-23, "La Coopération française et le processus de démocratisation en Afrique: Congo, Centrafrique et Bénin, (en collaboration avec P. Quantin, CEAN), 250 p. Paris: CERI, Rapport pour le Ministère de la Coopération Française, "Bouffer l'argent": politique du ventre, démocratie et clientélisme au Bénin", in F. Sawicki, J-L. Briquet (dirs), *La Politique clientélaire*, Paris, PUF, 1998, pp. 75-110).

38 See HDI by UNDP from 1965, 1975, 1985, 1995, 2005, 2010.

39 "The Global Economic Crisis: Riots, Rebellion and Revolution. When Empire Hits Home, Part 3" Global Research, http://www.globalresearch.ca/the-global-economic-crisis-riots-rebellion-and-revolution/18529.

necessity to "step up action to stem the global economic crisis or risk delaying a recovery and sparking violent unrest on the streets[40]. Violent protests could break out in countries worldwide if the financial system was not restructured to benefit everyone rather than a small elite." In the same line, the Bank for International Settlements (BIS) also warnts that, "the scope and magnitude of the bank rescue packages also meant that significant risks had been transferred onto government balance sheets.[41]" Cross the developed World particularly Europ[42], governments are still afraid of citizen's revolt on the street such as happened in France in January 2009.

The main question is that, if France – the colonial power of West African Francophonie – is fearing its own and demographic old citizens, what will happen in Benin with 44.7 % of the population[43] under 15 years in 2016? Benin with its explosive mix of high population growth, leading to a "*youth bulge*", combined with urbanisation, jobless growth. West African countries particularly Benin due tot he maintenance of democracy is going to make the same violent experence of Egypt. "Demographics, technology, foreign policy, legitimacy of the state, corruption and other factors all played a part in bringing discontented Egyptians out on the streets …[44]"

The main grievances and causes of outrage, so then of violence[45] are:

– Economic injustice and austerity: Inefficient public services, jobs, wages/labor conditions, inequality, low living standards, agrarian/land reform, high fuel and energy prices, high food prices.

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40 Angela Balakrishnan, "IMF chief issues stark warning on economic crisis." The Guardian: December 18, 2008: http://www.guardian.co.uk/business/2008/dec/16/imf-financial-crisis.

41 BIS, International banking and financial market developments. BIS Quarterly Review: December 2008: p. 20.

42 Ian Traynor, "Governments across Europe tremble as angry people take to the streets" in The Guardian: January 31, 2009: http://www.guardian.co.uk/business/2009/jan/31/global-recession-europe-protests and Ben Hall, "French workers stage strike in protest at job losses and reforms" in The Financial Times: January 29, 2009: http://www.ft.com/cms/s/0/71c25576-eda6-11dd-bd60-0000779fd2ac.html.

43 See Benin Population: Age structure at http://countrymeters.info/en/Benin, 09-10-2016.

44 What caused the revolution in Egypt? By The Guardian At https://www.theguardian.com/global-development/poverty-matters/2011/feb/17/what-caused-egyptian-revolution.

45 "World Protests 2006-2013" by Isabel Ortiz, Sara Burke, Mohamed Berrada, Hernán Cortés, for Initiative for Policy Dialogue and Friedrich-Ebert-Stiftung New York, Working Paper 2013, September 2013, pp. 5-6, under http://www.cadtm.org/IMG/pdf/World_Protests_2006-2013-Final-2.pdf.

– Failure of Political Representation and Systems: Deregulation and *"wild privatization"*; corruption; failure of transparency and accountability; surveillance of citizens.

– Global Justice: *"Imperialism"*, free trade and the G20 at the expense oft he most vulnerable and poor.

– Rights of People: Ethnic/indigenous/racial rights; labor rights; right to freedom of assembly/speech/press; religious issues; immigrants' rights.

This population growth rates are hampering the progress in productivity and wealth, and contributing to perpetuate poverty and let a large part of the population living in extreme poverty. In 2003, 47.33 % live with <1,25$/day, 75.32 % with <2,-$/day. In 2007[46] from 33.3 % Benin falls back in 2012[47] as the 47th Country with 37.4 % living under the poverty line. Due to the high rate of population[48] growth, the increases in per capita income are significantly lower than GDP growth rates as already noticed above.

2.2 Education

Previously, the Beninese educational system has undergone periods of celebrities i.e. "Latin Quarter of Africa[49]". Periods that have lost sight on that, education must always be given special attention, especially on school infrastructure, teaching materials, and improving quality of teaching staff. Meanwhile, there is a deep reflexion on the future of educational system in Benin since 2005[50]. A new program is establshed with the cooperation of US Aid.

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46 http://data.un.org/Data.aspx?d=MDG&f=seriesRowID%3A581, from, "Enquête Modulaire Intégrée sur les Conditions de Vie des Ménages (EMICoV)".

47 CIA World Factbook *(This is an exception)* – Unless otherwise noted, information in this page is accurate as of January 1, 2012 under http://www.indexmundi.com/g/r.aspx?v=69.

48 See "Education sector analysis methodological guidelines: Sector-wide analysis, with emphasis on primary and secondary education", UNESCO, UNICEF, Pole de Dakar, World Bank, With the financial support of: Global Partnership for Education, September, 2014, At 6:15 PM, 15th November 2016, under https://www.unicef.org/education/files/vol1eng.pdf

49 Quartier latin de l'Afrique.

50 "Assessment of the USAID assistance program to the reform of the Benin primary education system", paper prepared by Michael J. Midling, Ph.D., Francine Ahouanmènou-Agueh, Emmanuel M. David Gnahoui, Ph.D., Jennifer L. Mandel, Ph.D., Prudencia Zinsou, for DevTech Systems, Inc., 1700 N. Moore St., Suite 1720, Arlington, VA 22209 USA, AUGUST 2005, under http://www.devtechsys.com.

In 1989[51], the quality of Benin education was so far eroded near by collapsed. In 1990, a national Conference on Education (Etats Généraux de l'Education-EGE) was held and has adopted a national policy and strategy to improve education system with significant changes. Most important advances were in access and teaching/learning conditions.

Basic Education in Benin is compulsory for children between ages six and eleven. After voluntarily spending two or three years in kindergarten (Jardin d'enfant), it takes six years for them to complete and take the primary school certificate (CEPE). The gross enrolment rate has increased from a base of 49.7 % in 1990 to 96 % in 2004.

Primary[52] enrolment has changed over the years as followed: 2010: 94.12 %; 2012: 95.01 %; 2014: 95.87 % so then the progression in lower secondary 2013: 63.48 %. Over the past several years, Benin has taken significant steps towards improving primary education. In 1996[53], the gross primary enrolment rate was 72.5 %, and the net primary enrolment rate was 59.3 % with a net primary enrolment rate for boys at 71.6 % and for girls 46.2 %. On the other hand, the student/teacher ratio rose from 36:1 in 1990 to 53:1 in 1997, what in turn means a clear degradation of teaching quality. The overall adult illiteracy[54] rate is nearly 70 %, whereby only 25 % of women in Benin are literate.

Since 1998[55], net enrolment rates for boys increased from 65 % to 81 %, while girls' enrolment rose from 32 % to 58 %. In 1999, an overhaul of the education system has meant that, within the same public services of education, there are dissensions on the introduction of new reforms of the educational system. USAID's[56] education strategy emphasizes high-quality primary education in Benin so that all children develop early reading skills whereas the established system is still having a colonial taste.

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51 http://cotonou.usembassy.gov/facts_about_benin.html.

52 See UNESCO Data Bank, Education: Gross enrolment ratio by level of education, under http://data.uis.unesco.org/?queryid=142.

53 "Findings on the Worst Forms of Child Labour" by Bureau of International Labours Affairs, US Department of Labour (2001).

54 http://www.usaid.gov/gsearch/Education%2Bin%2BBenin%2B and http://www.unicef.org/infobycountry/benin_statistics.html.

55 http://www.usaid.gov/benin/education.

56 Ibid.

Since 2007, Benin has abolished school fees (matriculation fees). In addition, a national strategy to fight[57] against illiteracy with the aim of gradually reducing it but consequently literacy is bearing fruit (see the table 1 below from 2007-2012). Furthermore, since the free basic education, the enrolment rate in primary education has increased gradually.

Nevertheless, the whole school system still operates on a 6-4-3-3-4 year's French system. This means attendance exactly: 6 years for primary school, 4 years for junior high school, 3 years for senior high school, and 3 years for Bachelor's degree, 4 years for Master's degree.

Table 1: UNICEF Basic Indicators on Education

Youth (15-24 years) literacy rate (%) 2008-2012*, male	54.9
Youth (15-24 years) literacy rate (%) 2008-2012*, female	30.8
Number per 100 population 2012, mobile phones	89.9
Number per 100 population 2012, Internet users	3.8
Pre-primary school participation, Gross enrolment ratio (%) 2008-2012*, male	19.7
Pre-primary school participation, Gross enrolment ratio (%) 2008-2012*, female	20.2
Primary school participation, Gross enrolment ratio (%) 2008-2012*, male	137.3
Primary school participation, Gross enrolment ratio (%) 2008-2012*, female	120.1
Primary school participation, Net enrolment ratio (%) 2008-2012*, male	–
Primary school participation, Net enrolment ratio (%) 2008-2012*, female	–
Primary school participation, Net attendance ratio (%) 2008-2012*, male	72.1
Primary school participation, Net attendance ratio (%) 2008-2012*, female	68.1
Primary school participation, Survival rate to last primary grade (%), 2008-2012*, admin. data	55.8
Primary school participation, Survival rate to last primary grade (%), 2008-2012*, survey data	89.3
Secondary school participation, Net enrolment ratio (%) 2008-2012*, male	–
Secondary school participation, Net enrolment ratio (%) 2008-2012*, female	–
Secondary school participation, Net attendance ratio (%) 2008-2012*, male	49.3
Secondary school participation, Net attendance ratio (%) 2008-2012*, female	40

Source: UNICEF Country Information at August 1th 2016 6 PM
http://www.unicef.org/infobycountry/benin_statistics.html

The literacy rate 54.9 % (Male) 30.8 % (Female) of youth (15-24 years) is a great indicator that already shows that there is a lot to do in education in Benin. The education policy improvement has led to a primary school attendance ratio

[57] http://www.unicef.org/infobycountry/benin_statistics.html. September 5th 2016 at 11 AM

of 72.1 % (Male) and 68.1 % (Female). The about 4 points percentage at the basis deteriorate seriously by the entry in secondary by 9.3 percentage points and increase up to 24.1 percentage points by the youth.

2.3 Employment

The strategy applied in this sector with the instrument of saving, also well known as Tontine, has allowed men and women to create their micro and small size enterprise. Tontine[58] is still in SSA the path of poverty reduction opportunities and shared prosperity pattern. It also increases growth and productivity on and off farm as also the social transfer. In Benin, the classic Banks are still representing 90 % of the financial activa, some 2686 milliards of FCFA equal to 62 % of GDP in June 2015.

On the other side, around 700[59] Micro-Finance-Institutions are operating in Benin but only 85 are licenced. These institutions manage only 5 % oft he financial activa for sound 2.1 millions clients (20 % oft he population and four time more than the classic banks). It is mostly a shadow economy especially in rural areas and the facilitated access to financial services in the country. They help for micro-enterprise settlement from 10.000,-FCFA (20,-US$) up to business of sound 5-10 millions FCFA (10-20.000,-US$). This strategy has facilitated the access to income/revenue and mainly reduced unemployment.

Nevertheless, the population living with less than 1,-$/day is very high, about 53.9 %[60]. Reforms of the banking and financial system, and the promotion of vocational training, development of a network[61] of institutions to support the poor and the poorest, are all actions to promote formal and informal business, so then a dynamic increase of job creation. This in turn reduces unemployment, alleviates poverty and increases life standard. According to the results of

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58 In a Document of The World Bank, Report no. 94191-ML, "Republic of Mali – priorities for ending poverty and boosting shared prosperity systematic country diagnostic (SCD)" June 22, 2015, pp. 26-45, 59-69, 90-95 under http://documents.worldbank.org/curated/en/101991468188651405/pdf/94191-CAS-IDA-SecM2015-0144-IFC-SecM2015-0101-MIGA-SecM2015-0058-Bpx391497B-OUO-9.pdf.

59 "Benin: Le montant total des actifs bancaires estimé à 2.686 milliards de F CFA en 2015" par Ablaye Modou Ndiaye in Financial Afrik under http://www.financialafrik.com/2016/02/25/benin-le-montant-total-des-actifs-bancaires-estime-a-2-686-milliards-de-f-cfa-en-2015/#.V_eC3snxxf0.

60 EMICoV 2011, Enquête Modulaire Intégrée sur les Conditions de vie des Ménages 2011.

61 Principe of NGOs, Cluster of enterprises, Trade Union, different Associations down to the Compound headed by elderly women or by a patriarchal system.

EMICoV 2011, Enrolment Net Ratio of 6-11 years was about 74.4 % and of household food insecurity represents 22.5 % of the population.

The following data are from ETVA[62]-2012: expanded unemployment rate of young of 15-29 years was 14.3 %, Youth participation rate of 15-24 broad mean at 30.4 %, the percentage of employed young at sound 27.6 % (% irregular workers: 24.4 % and employed: 3.2 %), the percentage of young people aged 15-29 working in the informal sector was at 89.7 %, whereas the percentage of young people aged 15-24 who have passed from school to employment was 19.7 % with an average time of transition to stable employment at 11 months. The informal sector and the self-employment absorb the most part of the active population, especially the youth.

2.4 Health

Some indicators[63] can highlight the importance and the gravity of the situation; for instance: the overtime evolution of the ratio of citizens/doctor, the proportion of immunised children, and the rate of child mortality (0-5 years).

We can observe that within five years, although Benin universities have produced a huge amount of Doctor Med., nurses and midwifes, the results are not convincing, so that the health care coverage cannot be secured. Most of these capacities and capabilities is now working mostly in France and elsewhere as in Benin; a lethal intellectual outflow for a country. The first Beninese[64] immigrants in France arrived in the 70s and the 80s. They came mostly from urban areas. Today, the population has become more and more numerous, but a little less than their neighbors from Togo. Beninese people in France total population represent 30,000 with a large parts of academicians.

At the longer period from 2000 to 2010, the immunization coverage of children was better of and is confirmed by the decline of child mortality. According to this context, some questions occur; for instance: Do we have a social and economic program of investment targeting the poor in Benin? Or an investment program to modernize the health care infrastructure, the quality of supply and

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62 ETVA Enquête sur la Transition vers la Vie Active.

63 See WHO, UNDP, Report from 1965, 1975, 1985, 1995, 2005, 2015, especially about health indicators.

64 See https://en.wikipedia.org/wiki/Beninese_people_in_France, Mahamet Timera in, "L'immigration africaine en France: regards des autres et repli sur soi" by Politique Africaine under http://www.politique-africaine.com/numeros/pdf/067041.pdf.

social provision? Government has some real problems of efficiency, whereas the private sector is rapidly rising. Once again, this does not mean that the health service supply satisfies the demand. In reality, it is poor.

2.5 Poverty Reducing Strategy

The infant start of social protection and the fight against poverty, specifically intended for the poor and the poorest have not yet made effective accounting yields. These social groups are characterized by their diversity and heterogeneity. To this end, all poor and vulnerable groups of the population must be accounted because they represented 51.6 % in 2011[65] and unlikely 26.7 % expected in 2015, and by the way giving them the opportunity to integrate productively into the economic circuit.

All the outputs of these policies have a full impact on the relationship between development of human Capital as a whole and poverty reduction strategy. Human Capital Development has proven that it can lead to the development of market economy, increase productivity, so then generate jobs and higher income opportunities in a well-designed and adequate environment as we habe seen by Weber, Li and Huang. In economic literature, there are also many arguments against the assumption[66]. Other arguments[67] pretend that the Human Capital Development programs and projects in Sub Sahara Africa are not sequentially and timed enough, moreover, these are too disparate to improve performance or sustain the economy. The tenors of globalisation are argued that it is not a matter of demography but one of capability and capacity of the Human Capital in Africa. Human Capital in Benin seems to be too weak and lack the potential to play its role in economic development, to sustain technological transfer and to take part in the ongoing globalisation process[68].

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65 See "IMF Executive Board Concludes 2015 Article IV Consultation with Benin", Press Release no. 15/565, by the Executive Board of the International Monetary Fund (IMF), December 16, 2015, p. 30, table 7. Benin: Millennium Development Goals, 1990-2015 under https://www.imf.org/external/pubs/ft/scr/2016/cr1606.pdf.

66 A deeper discussion is in the following chapter III.

67 Ibid. chapter III.

68 Robert Kappel, "Africa: Neither Hopeless Nor Rising" by The Annual Meeting of the African Development Bank will take place in Kigali, Rwanda, from 19 to 23 May 2014. The theme of the meeting is "The Next 50 Years: The Africa We Want." Presented by Prof. Dr. Robert Kappel, The GIGA German Institute of Global and Area Studies – Leibniz-Institut für Globale und Regionale Studien, GIGA Focus Number 1, 2014, ISSN 2196-3940. 16th

If we do apply these considerations to Benin on the aspects of markets, FDI and growth, we will find out of the literature[69] that, despite corruption, nepotism and clientelism, huge effort are still done as following to maitain an infantile *good governance*:

– Benin is one of the states in SSA living on the narrow margin between stability and fragility. It has made at time a great performance due to the introduction of reforms in economic policy. Reforms like: opening markets, safeguarding property rights, promoting micro, small and medium-sized enterprises, etc.

– But Benin markets are still very volatile. Fluctuations[70] in demand and prices directly affect investment, foreign trade, domestic markets and income levels. These can be noticed at Cotonou Port in the balance of Imports/Exports. Benin has a less diversified but a large amount of export of natural resources and stagnated agricultural products. This in turn, due to the volatility of price on international markets, the country is exposed to a latent Dutch Diseases.

– Benin is in fact also demonstrating positive growth rates and a friendlier business climate after many decades of crises. Economic growth varies greatly from year to year. "GDP per capita in Benin is reported by the World Bank from 1960 until 2012. Benin GDP per capita averaged 468.6 USD reaching an all-time high of 567.9 USD in December of 2012 and a record low of 380.2 USD in December of 1962"[71]. Economic growth is quite low with less than

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69 Jean-François Bayart in, "L'Afrique des bourgeoisies nouvelles", *Le Monde diplomatique*, novembre 1981, pp. 17-18. Richard Banégas in, "Retour sur une transition modèle. Les dynamiques du dedans et du dehors de la démocratisation au Bénin" in J-P. Daloz, P. Quantin, (dir.) *Transitions démocratiques africaines,* Paris, Karthala, 1997, pp. 23-94, "Action Collective et changement politique en Afrique. La Conférence nationale du Bénin". Cultures et Conflits, n° 17, printemps 1995, pp. 137-175**,** "Nouvelles figures de la réussite et du pouvoir", Politique africaine, n° 82, juin 2001, pp. 5-23, "La Coopération française et le processus de démocratisation en Afrique: Congo, Centrafrique et Bénin, (en collaboration avec P. Quantin, CEAN), 250 p. Paris: CERI, Rapport pour le Ministère de la Coopération Française, "Bouffer l'argent": politique du ventre, démocratie et clientélisme au Bénin", in F. Sawicki, J-L. Briquet (dirs), *La Politique clientélaire*, Paris, PUF, 1998, pp. 75-110).

70 Robert Kappel**,** "Africa: Neither Hopeless Nor Rising" by The Annual Meeting of the African Development Bank will take place in Kigali, Rwanda, from 19 to 23 May 2014. The theme of the meeting is "The Next 50 Years: The Africa We Want." Presented by Prof. Dr. Robert Kappel, The GIGA German Institute of Global and Area Studies – Leibniz-Institut für Globale und Regionale Studien, GIGA Focus Number 1, 2014, ISSN 2196-3940. 16th November 2016 at 12:30 PM under https://www.giga-hamburg.de/de/system/files/publications/gf_international_1401.pdf

71 http://www.tradingeconomics.com/benin/gdp-per-capita.

4 %/year. Benin must establish at least some ≥4 % to pretend to a sustainable growth.

– According to the World Bank, Foreign Direct Investment[72]; net inflows (% of GDP) in Benin was last measured at 2.10 in 2012. This investment is mostly concentrated in resources but not in industrialisation. There is a lack of structural change toward industrialisation. A too small domestic market is accompanied by an insignificant role played on global market. Although the income gap is still large, there is a progressive and steady growing middle class in Benin but determining who belongs to this group has proven to be very problematic, because of the measures to characterise this class. It goes from ≥2,-$/day up to own house, constant monthly income, education level, etc. So then, there is a huge opportunity of development in Benin.

3 The Research Objectives

If we do consider the UN Millennium Goals (MDGs) about social progresses for instance Education for All (EFA), Benin is one of the countries in SSA with roughly 10 millions citizens, mineral resources[73] such as oil on and off shore, gold, iron, phosphate just to mention few resources, able to ensure economic prosperity, people's welfare, and provide the requisites, the required opportunities for health care/prevention and education. This strategy will be based on these large reserves of natural resources for a short time. This compared to the amount of population and distribution[74] of this population within the country, Benin fails overall. The available or existing resources are too vague and less explanatory.

There are many evidences on the effects of social investments such as Health and Education as the main vector of Human Capital Development, so then of growth sustainability and welfare. As noted by Alabi[75]: "… the link between

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72 http://www.tradingeconomics.com/benin/foreign-direct-investment-net-inflows-percent-of-gdp-wb-data.html.

73 Ministry of Mine in Benin.

74 Taux de répartition de la population au Bénin: ANNEX 1.

75 Alabi, R. A. quoting the World Bank's development Report 2000/2001 in, "Progressivity of education spending in Nigeria" by Berichte aus dem Weltwirtschaftlichen Colloquium der Universität Bremen, Mai 2010, Nr, 119, Universität Bremen-Germany.

successful poverty reduction and social spending … depends foremost on the intra-sectoral allocation of education (health) spending in favour of the primary sectors". The main source of information is the rate of investments and targets. Out of the summarised revenues of Benin the percentage of the GDP i.e. public spending allocated to Health (2007-2011) is 2.1 % then to Education is 4.1 %. Benin education and health sectors continue to represent a significant share[76] of annual public expenditure. Its amount is on average 23 % of public expenditure allocated to education and 7 % to the health.

Parallel to this context, we should know that about 47.3 % [77] of the population is living below the international poverty line of US$1.25 per day. This means in return that the majority of the population is still paying health care and education "out of pocket"[78] so that these people may be left out of social provisions most of the time. In Benin, there is a serious inequality in income, foods/nutrition, health, education access and many more. These inequalities are substantially rising every year. Under this premise, individual could never as such, participate to a national development process.

There are many arguments enforcing the choice of Benin for Health and education. Benin, an oil and cash crops producing country over the last decades, is one of the smallest countries with sizable population in Africa. So then Benin is "handy", and it can be used as research sample for other countries in Africa. The subject of our investigation and analysis is: Human Capital Development, Case Study on BENIN Health & Education. In this work:

– We will explain the sources of the difficulties to implement an adequate HCD programs.

– We also have to take into account a certain number of anthropological, historical, traditional and sociological parameters of Benin societies. These parameters have a heavy weight by the implementation process of programmes, especially in rural areas.

– We will answer question such as: – Can we be sure that the HCD is the most important path for employment and poverty alleviation, growth and sustained

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76 In, "BENIN-COUNTRY OVERVIEW", Last updated: Sep 28, 2016, by the World Bank – Washington/USA under http://www.worldbank.org/en/country/benin/overview.

77 UNDP Report from 2000 to 2010.

78 ANNEX 3 shows a good explicative panel of the cost and amount in health charge of the poorest.

technology transfer? – How can education and health sustain the national welfare?

– We will find out that without a social network[79], the poor people will never be supported. The importance of the informal network has to be analysed because it supports family and reinforces the intra-relationship of the families' compound. It heavily reduces, however, costs of education, health prevention and nutrition, insure contract enforcement of each member. This research will review the issues relating to the change in socio-cultural evolution in the country all over the years.

Along this study, the analysis will also be centred on the quality of the stock of Human Capital. Therefore, this research will focus on the process of Human Capital Building i.e. how education, health care and nutrition can contribute to build up Human Capital as one of the best solution for the implementation of technology i.e. industrialization, to reduce poverty and to generate income. Three important points result out of the above questions:

- the close relationship between labour i.e. income level and education,
- health state as the obvious consequence of nutrition and education,
- the factors affecting the demand of education, health care and nutrition.

In this aim, the poverty status of the country added to the collateral difficulties met by people to upgrade their own living standard will be considered through this research.

[79] For instance the compound headed by an elderly woman or a patriarch.

Chapter II: Hypotheses and Methods

1 Theories and Hypotheses

The main point in this thesis is that economic and social development in Benin can be seriously handicapped by the level of its Human Capital i.e. stock, capacity and capability, particularly its weakness. Commonly the focus is usually brought on income or on educated labour force nationwide. By closer consideration, it is not only a well-educated labour force which can resolve the problem of Human Capital Building, but particularly the healthy, well-educated and well-nourished one. This is based on the positive relation between the yields returns on progressive (pro poor) investment and the imperative factors mentioned above.

This in turn means that the government in Benin is still not able to design and to implement adequate educational and health policies that reflect the national economic and social development needs.

As we can notice by O. O. Uzor[80] and Romer[81] *"This argument is based on the premise that the stock of human capital i.e. 'knowledge' as the new growth theory suggests, is a complimentary asset that drives economic growth. The greater the stock of human capital combined with other factors, the higher the national output. Hence, the economic underdevelopment in Africa is not necessarily due to lack of technology or capital but due to low human capital development existing in the region. Technological development is a function of human capital development, and adaptation of new technology in local production systems depends on the type of education and educational level of the la-*

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80 See Osmund, O. UZOR in, "Clusters, Networks and Innovation in Small Enterprises and the Role of Investment in Development of Small and Medium Scale Enterprises in Nigeria", Thesis presented for the degree of Doctor of Economics, Faculty of Economics, University of Bremen, Germany, March the 30th, 2009, p. 23.

81 Romer, P. M. in, "Implementing a National Technology Strategy with Self-organising Industry Investment Boards" by Brooking Papers on Economic Activity, vol. 2, pp. 345-390, 1993, p. 345. About growth, Romer assumption is that, "ultimately, all increases in standards of living can be traced to discoveries of more valuable arrangements for the things in the earth's crust and atmosphere" … "No amount of savings and investments, no policy of macroeconomic fine tuning, no set of tax and spending incentives can generate sustained economic growth unless it is accompanied by the countless large and small discoveries that are required to create more value from a fixed set of natural resources".

bour force in the economy. One can therefore argue that the ability of individuals to escape from poverty trap starts from the level of educational qualification". This can be widened to his/her health state.

We can deduce out of this assumption that a well-educated and healthy individual has the capacity and the capability to transfer her/his knowledge in the production process so that, he/she upgrades the chance to earn a higher and better wage in comparison to others. With this better wage, he/she can easily finance education, health care and nutrition for the whole family. Acquiring and sustaining these factors i.e. education and health; insure for the lifetime a better income, increase individual esteem[82] and productivity in relation to the national technology needs and the available national production[83] system. In this context, we have to pay also attention to the fact that: "… human capital is the stock of knowledge, competence, health, training, including creativity and other investments, embody the ability to perform labor tasks more productively"[84]. The fundamental argument concerning the development and building of Human Capital is the capital (money) to be invested in timing and sequence, especially pro poor targeted and the time until the return on investment begins. There are many theories and hypothesis concerning pro poor targeted investment. We should not forget the devil cycle of diseases developed by Myrdal Gunnar[85]. He has linked and inter-related the importance of work/income – good health-education – nutrition. Going deeper, we will found out that infrastructure, protected environment and even democracy have all an important impact on the well-being and welfare of citizens. This citizen is a piece belonging to the National stock of Human Capital. We will not consider the whole "human capital theory" as developed by Milton Friedman[86], Gary Becker[87],

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82 See Abraham Maslow about priority of individual needs.

83 See for example the precedence in South Korea, Malaysia, Singapore, even in some parts of India.

84 See "Education, health and economic growth in african countries" by Jude Eggoh *a,b*, Hilaire Houeninvo *b* and Gilles-Armand Sossou *b*, (aUniversité d'Angers, France, bUniversité d'Abomey-Calavi, Benin) in* Journal of Economic Development, vol. 40, Number 1, March 2015. Under http://www.jed.or.kr/full-text/40-1/4.pdf.

85 Gunnar Myrdal in, "Asian Drama: An Inquiry into the Poverty of Nations", first publication by Penguin Books vol. II, Harmondsworth (1968).

86 Friedman, Milton article in essay on, "The Role of Government in Education", 1955; Friedman, Milton and Kuznets Simon in, "Income from Independent Professional Practice" by NBER, 1954, pp. 89-97.

and Jacob Mincer[88]. We will only pay attention to its aspects of education and health.

People lacking education are far from generating income easily. It is hard for them to get into regular economic activities and to have a profit of the institutions. As confirmed by the endogenous growth theory. Romer[89] and other theoriticians[90] consider education as the cornerstone of R&D and of its outputs is first a direct function of human capital and the main vector of generating economic growth. For instance, Lucas weights on education accumulation or stock whereas Romer has his focus on Research & Development (R&D). There is the assumption of McMahon[91] registering the direct and indirect effects of education on income level. The controversy comes from Milton and Rose Friedman[92]. Milton and Rose did not accept the hypothesis that education can generate social welfare. In their research in China, Li and Huang[93] have found that health often contributed more to economic growth than education.

According to the chosen parameter and methodology, we come to the same assumption as Gyimah-Brempong and Wilson[94] meaning "… that both human capital development indicators have a positive and significant effect on the growth of per capita income for sub-Saharan African and OECD countries"[95],

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87 See Gary S. Becker January 1994 in, "Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education Chapter II: Human Capital Revisited, 3rd Edition, pp. 15-28, The University of Chicago Press.

88 Jacob Mincer in, "HUMAN CAPITAL AND ECONOMIC GROWTH", NBER WORKING PAPER SERIES, Working Paper no. 803, November 1981.

89 See Romer, P. M., 1990. Endogenous Technological Change." Journal of Political Economy, 98, S71-S102.Statistics, 52, 169-210.

90 See Romer, P. M., 1986, "Increasing Returns and Long run Growth". Journal of Political Economy, 94, 1002-37. Lucas, R. E, 1988. On the Mechanics of Economic Development, Journal of Monetary Economics, 22, 3-42. Quah, D and J.E. Rauch (1990), "Openness and the Rate of Economic Growth." Journal Development of Studies. vol. 49 (2), 307-335. Grossman, G and Helpman (1991) Innovation and Growth in the Global Economy. Cambridge, MIT Press, 1991. Rivera-Batiz, L.A and P.M Romer (1991), "Economic Integration and Endogenous Growth". Quaterly Journal of Economics, 106, 531-555.

91 See McMahon, W.W. 1987, The relation of education and R&D to productivity growth in the developing countries of Africa, Economics of Education Review, 6(2), 183-194.

92 See Milton and Rose Friedman (1980): Free to Choose: A Personal Statement. New York: Harcourt, Brace and Jovanovich, p. 34.

93 See Li, H., and L. Huang 2009, "Health, Education and Economic Growth in China: Empirical Findings and Implication," *China Economic Review*, 20(3), 374-387.

94 See Gyimah-Brempong, K., and M. Wilson 2004, "Health and Economic Growth in Sub-Saharan African and OECD Countries," *Quarterly Review of Economics and Finance*, 44, 296-320.

95 See "Education, health and economic growth in african countries" by Jude Eggoh *a,b*, Hilaire Houeninvo *b* and Gilles-Armand Sossou *b*, (aUniversité d'Angers, France, bUniversité d'Abomey-Calavi, Benin) in* Journal of economic development, vol. 40, no. 1, March 2015. Under http://www.jed.or.kr/full-text/40-1/4.pdf.

especially for Benin and corresponding to the dissertation topic: Education and Health for Human Capital Development.

2 Methodology

2.1 Motivation

There is no doubt, that this work is influenced by the observation in Germany and France during the past three decades. Further, it is based on observations of the *educational and health care systems* in both countries.

Nevertheless, these systems have played the most important role in their economic and social recovery after the Second World War. As examples, these systems can play a predominant role in the poverty reduction strategy, income opportunities and employment in Benin. By no mean, it will not be a copy, but a kind of adequate, proportionally well-designed substitution to the context of Benin. It will be based on the nature and development track of national program of education and health. The demographical evolution and the proliferation of micro and small size entrepreneurship in both sectors (informal and formal) in Benin are other points of "stress". There are many other challenges to be taken.

- The first one is a matter of semantic, of definition of these enterprises specialised in education or in health care provision. We will see that the definition depends on who (institution, organisation, individual) is in the background to promote it.
- The second one concerns the locality, geographical environment.
- The third one is the qualitative and quantitative aspects of the public managed education and health care.

By taking into account the economic and social performance added to the applied policies and programs to reduce poverty and unemployment for the welfare; it is not the aim of this research to develop new theory on Human Capital. This work will not try to weight the existing theories or to search for a new one. We will rather analyse the economic and social context of Benin and pull out recommendations for policy-makers. Basically, the motivation directing this work is to find, for a so small country like Benin with a small population, a way to provide and to sustain a basic education and health care for all.

2.2 Data Collection and Field Survey

About Educational and Health Investments

One assumption is even confirmed by Tanzi and Chu[96]: Investments in health and education are the vector *par excellence* to promote equity, to reduce poverty and to sustain growth and welfare. Therefore, it is obvious that any kind of misallocation will directly bias the accessibility to services, so then reduces its progressivity. Health and education plans need an accurate efficient management, time and sequence, specificity of action and locality. The most important hurdle in this research is the lack of knowledge and basic information from government about the measurable impacts of the expenditure, the importance of the distribution and allocation of resources, the explanation of the possible or the registered changes of social indicators, etc. The available results of the INSEA[97] did not pointed out the regional imbalance, particularly between North and South or between urban and rural areas. In reality, there is an enormous difference between Departments (District/County) in Benin so then in the opportunity of access to education and health services. Obviously and with its steady increasing population, investments in basic health care and primary education are still not have the expected impact on people. If we remind all the efforts that government makes to promote health and education, according to the so called DSRP[98] for instance, the only few remarks that one could make will concern the national distribution of the efforts and how it is unequallly implemented from South to North at the severe expense of some region in North such as Alibori.

In an extended analysis, one can deduct in consequence that, according to the demographic increase, infrastructure, provisions, staff, material, maintenance and repair are far to be updated, rather all these are of poor quality and quantity to satisfy demands and pro poor needs. The first consequence is that a large proportion of financing education and health care is made out of pocket[99], what

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96 Tanzi, V. and Chu, K. in, "Income distribution and High quality of growth", Cambridge, MIT Press, 1998.

97 Benin National Statistic Office.

98 "Bénin: Document de stratégie pour la réduction de la pauvreté", IMF-Report Nr. 11/307, September 2011, IMF Washington/USA and, "Stratégie de Croissance pour la réduction de la pauvreté (SCRP 2011-2015)", UNDP-Report, UNDP, Decembrer 2010, under http://www.bj.undp.org/content/benin/fr/home/library/poverty/publication_334.html.

99 Arvil V. Adams in "Skills Development in the Informal Sector of Sub-Saharan Africa" by Arvil V. Adams, World Bank August 8 ,2008, 15th November 2016, at 1:30 PM un-

in turn left out a large proportion of the poor population. With 40.1 % oft he population in 2015 living with less than 1,25$/day, the GDP[100] per capita – current prices in Benin is US$ 933 (2015), it is very hard to expect that government could make more than giving a tuition free and a simple basic medical care to the population. What one could call *"out of pocket"* are: school material (pencil, paper, books, bag), dress, transport, meals, etc. Once again for health: transport, meals, treatment material at the medical station (Compress, syringe, disinfectant, cotton for care, mosquitos net, etc.) and medecine. That are the reasons why around 40 % of the population are left by side without a chance to go to school or to receive some health care. The use of private supply of services is very small because of the expensiveness although, it is not overall proved that this supply has a better quality than the public one. Moreover, most of the private are established for making pure profit at the expense of users. The whole system, usually in public and mostly in private, has a low level of infrastructure facilities, quality and quantity of staff, competency and responsibility, management and consistency of policy and funding.

This evaluation and analysis are compounded with field observations in the aim to round up the primary source of data. We should already notice that in Benin, we will have to deal with the suspicion, the fear, the technical language problems and the subjective consideration of "open mind" by the interviewees. Following challenges[101] should be added to our concern.

Interviews bring another question on the reliability and validity of the collected data insofar that people have enough trust and don't hide information. This lays on reaction of people by the question concerning their income, marital situation, number of children and food intake for instance. The same care concern

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derhttp://docplayer.net/12827400-Skills-development-in-the-informal-sector-of-sub-saharan-africa.html

100 Estimate by International Monetary Fund (IMF) World Economic Outlook (WEO) database, October 2014 quoted under Global Finance, https://www.gfmag.com/global-data/country-data/benin-gdp-country-report

101 We should not go into the dispute between Anthropologists and Economists about the reliability and validity of collected data based on the influence of cultural prejudice as noticed by Bulmer, Martin and Warwick Donald P. in, "Social Research in Developing Countries; Survey and Censuses in the Third World" by John Wiley & Sons Limited, Chichester, New York, 1983, pp. 3-24, but rather to accept that research can be multidisciplinary, so then applying techniques of other disciplines as noticed by Warwick Donald P., "On Methodological Integration in Social Research" in Bulmer, Martin and Warwick Donald P. (Eds.), "Social Research in Developing Countries; Survey and Censuses in the Third World" by John Wiley & Sons Limited, Chichester, New York, 1983, pp. 275-297.

also most of the national sources because we have following depressing situation in back land, out of the agglomerations:

About education and schooling, the free public schools are overcrowded and understaffed. They exist in densely populated areas but randomly situated in the back land. The public statistics are most of the time so fake. Schools[102] are somehow recorded where there is not even the building fundament. Legal private schools are too expensive and mostly in agglomerations, the "illegal ones" are everywhere.

About health, the panel is a research misery. Statistics are scarcely mentioned, either by the local operating NGOs with their "own way of statistics", nor by the district government. Closed-emergency-rooms are surgically still recorded. Health[103] officials and doctors who come for stamping and promptly return back to their private practices. Medicines and drugs for hospitals are sold on the black market, if not in private practices. Budget allocations deseapper, etc., etc. This is nearby the state of public health out of the agglomerations and partially in the periphery. It is obvious that common people cannot afford to go to private clinics and practices because of the cost barriers. Nevertheless, there is a sound amount of private practices and clinics all over the country. Furthermore, about insurance or such as "Community Based Health Insurance" is still not generalized. Some sporadic projects are operating in small communities.

About work and opportunity of income, where there is almost no infrastructure, no industry, no traffic, there is not much work. Besides the overcrowded local public administration, usually, there is only subsistence and survival work or occasional jobs; more often in rural areas as in the urban one. In Benin, the informal sector is also the biggest employer.

The sporadic and small production plants that one abusively can call industry are not enough by far to create jobs. This is the source of the power of the informal sector.

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[102] 2015 in Benin, northly of Agoué close tot he border to Togo, in two villages northly of the sub-prefecture of Athiémé in the County/departement of Mono I have the opportunity to observe by myself and talk with people, that the recorded schools don't exist. At the moment and today, it will be dangerous for me to give more details and report to the government. This is the important problem of Africa: corruption and fear.

[103] For instance in Cotonou greatest Hospital (CHU) and Porto Novo General Hospital it is very easy to make this experience and observation by oneself. It seems tob e that everybody knows about the problem but none want to talk about it!

About nutrition, from the capital to the smallest village, everyone who can afford to plant something is "in business" with his backyard garden. Commonly, in the villages as near the cities, it is for subsistence so then does not generated income as such. Around the agglomerations, there are concentrated but only few generate income by providing vegetables and meat for the cities.

In parallel, government and some organizations are planting cash crops (GM soya, cotton palm oil, coffee for instance) horizon wide with chemical, whereas staple foods such as maize, sorghum, manioc, Yam and sweet potatoes are scarce and overpriced.

3 Methods of Data Analysis

If we examine the effects[104] of public health and education spending over the period from 2000 to 2010/2015, could we find a positive effect of public health and education spending on poor? Could our analysis suggests that increased public health and education spending improves targeting to the poor, in form of behavioural changes by the use of public health care and education provision by poor? Do most of the benefits of the additional spending accrued to existing users of services, as initial utilization shares outweigh the behavioural responses? Along the following chapters, we will step by step address problems and propose recommendations to policy-makers.

Health care and education financing provision is characterized by too little government spending on health and education, meagre health insurance and educational infrastructure coverage, declining public educational quality and health care use contrasted by highest levels of private out-of-pocket spending. To understand the interconnectedness of these biased outcomes, we will also consider the opportunity of a pro-poor framework of health insurance and care with a well-designed basic education. For instance, the weak consumer demand contributes to the measly level of health insurance penetration in Benin.

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[104] Marginal benefit incidence of public health spending: Evidence from Indonesian sub-national data by Sparrow, R; Pradhan, M.; Kruse, I. In Journal of Health Economics, 2012, pp. 147-157, http://ideas.repec.org/a/eee/jhecon/v31y2012i1p147-157.html.

On the other hand, the increasing cost[105] for primary education, although free, for a poor educational curriculum and infrastructure weakened also the demand in Benin.

As we can notice by Perianayagam and Goli[106] (2013) "Health insurance cover is found to be a strong determinant of modern health care use. Regional and rural-urban disparities in health insurance and health care are significant. Health insurance coverage is positively related while public health care use is negatively related with household economic condition and education status". If we do accept that infant and child (age 1 to 5 years) mortality rates were used as the indicators for childhood mortality, we can investigate the association between public spending on health and childhood mortality[107].

The findings[108] in literature and other scientific research suggest that this assumption is insignificant. Instead, the per capita state income and female literacy[109] were significantly to improve childhood survival.

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105 Transport, material, food, uniform, etc.as extra costs.

106 Health insurance and health care in India: a supply-demand perspective by Perianayagam , A. and Goli, S., Paper provided by University Library of Munich, Germany, series MPRA Paper Nr. 51103, 31 Oct 2013 under http://ideas.repec.org/p/pra/mprapa/51103.html, abstract.

107 Kaushal, Kaushalendra Kumar, F Ram, Faujdar Ram, Abhishek, Abhishek Singh "Public Spending on Health and Childhood Mortality in India" by Kaushal, Kaushalendra Kumar, F Ram, Faujdar Ram, Abhishek, Abhishek Singh in MPRA - Munich Personal RePEc Archive, International Institute for Population Sciences, 9 January 2013, Mumbai - India, 16th November 2016 at 1:00 PM under https://mpra.ub.uni-muenchen.de/48680/1/MPRA_paper_48680.pdf

108 For instance:, "The impact of public spending on health: does money matter?", Referred to by Filmer, D., Pritchett, L., in Social Science & Medicine, vol. 50, Issue 10, 16 May 2000, pp. 1517-1518, 1999. Erratum under http://www.sciencedirect.com/science/article/pii/S0277953699001501, "Child Mortality and Public Spending on Health: How Much Does Money Matter?" by Deon Filmer in Policy research working papers, November 1999, World Bank. "Public spending on health care and the poor" by Sanjeev Gupta, Marijn Verhoeven, Erwin R. Tieongson, in Health Economics 12: 685-696, 2003, "Public Spending on Health and Childhood Mortality in India" by Kaushal, Kaushalendra Kumar; F Ram, Faujdar Ram and Abhishek, Abhishek Singh; Paper provided by University Library of Munich, Germany, Serie MPRA Paper Nr. 48680; 09 Jan 2013 under https://mpra.ub.uni-muenchen.de/48680/1/MPRA_paper_48680.pdf.

109 For example: "The Impact of Female Literacy on Infant Mortality Rate in Indian States" by Anil Shetty and Shraddha Shetty, Mangalore 575002, India, Curr Pediatr Res 2014 vol. 18 Issue (1): 49-56, under http://www.pediatricresearch.info, "Linking Infant Mortality with Female Literacy Rate" under http://www.unc.edu/~sauve/Final/, "Role of female literacy in maternal and infant mortality decline" by Alpana Kateja, Deparment of Economics, FSS, Bañaras Hindu University, Varanasi-221005 in Social Change June 2007 vol. 37: 29-39 under http://sch.sagepub.com/content/37/2/29.abstract.
"Female Literacy Rate is a Better Predictor of Birth Rate and Infant Mortality Rate in India" by Suman Saurabh, Sonali Sarkar, and Dhruv K. Pandey in Journal of Family Medicine and Primary Care, 2013 Oct-Dec; 2(4): 349–353. Under https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4649870/.

The percentage of the population living below the poverty line was significantly associated with infant and child mortality[110]. New targeting policy is required along with increased public spending on health and education to reduce infant and child mortality in Benin

We have already presented the context, the field in which the research will be driven. This context also depends on the population density in relation to the dimension of local infrastructure and so on, because the infrastructure must be operating in a clear limited location in, with the aim to evaluate their impacts on local people and in some instance on "free riders".

Therefore, government, decision-makers and development planers need to know accurately: how does the poor benefit from the existing structures and system of education and health? The result is required for the formulation and the implementation of policies and programmes. How much and how far are the investments pro-poor? To answer these questions, we should focus the so called: *Progressivity of Spending* to demonstrate the role of good targeted education and health investments i.e. government expenditures toward health and education for Human Capital Development, sustainable growth and welfare.

In our study, we must apologise that we can only observe the districts in Benin (*les departements du Benin*). As a consequence, the relevant statistic that we can use is the descriptive one. With this material, it is practical to analyze for instance: the age of the structures, their booking i.e. school enrolment, patient record, food production volume, minimum wage of employees in formal and in some instances compared to that of informal sector.

Some information out of this may help to evaluate the performance in Human Capital Building of the available structures.

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[110] WHO in "Success Factors for Women's and Children's Health: Country Specific Review of Data and Literature on 10 Fast-Track Countries' Progress Towards MDGs 4 and 5" WHO-Background Paper. An input to the country policy analyses and multistakeholder review meetings, November 2013. Developed by Options Consultancy Services/Evidence for Action (E4A), Cambridge Economic Policy Associates (CEPA), and the Partnership for Maternal, Newborn & Child Health (PMNCH). 15th November 2016, at 1:30 PM under at 5:20 PM under http://www.who.int/pmnch/knowledge/publications/country_data_review.pdf?ua=1&ua=1

4 Path of Research

The figure 1 below represents the path of the research and build up the interaction between Education and Health, their connex effects on the rest of the economy and social structures of the country. It is concerning the role and the importance of Health and Education in economic and social development, particularly in poverty alleviation, in human capital building and creation of wealth.

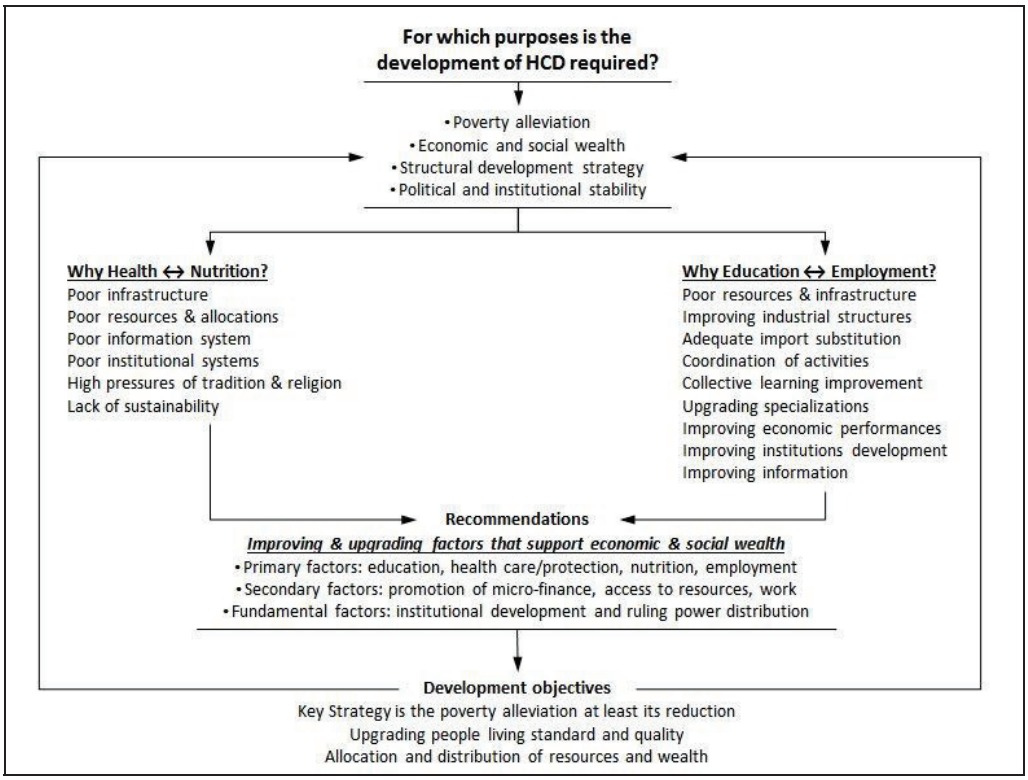
As a case study, this work analyses the state and the distribution of education and health care in Benin. These lower enrolments in secondary 1 and lower access to health care and nutrition are marked with regional inequalities, urban/rural misbalance, gender and income biases. Gender discrimination by school enrolment or access to health care as for nutrition is a common phenomenon in SSA.

The distributional analysis of school enrolment and access to health care and better nutrition in the country indicates that primary and secondary school enrolment, use of health facilities and the consumption of balanced food are concentrated in the hand of rich households who are located in the urban areas.

This work will also investigate the handicaps of HCD (Education and Health) in Benin, then the social networks including access to foods and nutrition, how people manage to earn income; all that help people to find a way out of their problems of education and health. At third, we will also bring some recommendations with the aim of contribution to the future Programs and Projects of HCD. We have to give a definition of the so-called “Social Networks” and the mean that it would be applied.

Social network including informal network is a support within family, compound, and village, etc. to help each other. It can also cross the borders of the family, of the compound, and of the village and joint outsiders. It is a pattern of interaction, of relationship among individuals with the aim to find solutions to their common problems. This can be done personally or over an organisation. Whatever, its intensity depends on the level of the actors and on their role in the concerned society.

Figure 1: Explaining the Need of Human Capital Development



Source: Adaptation by the author of Osmund, O. Uzor, 2009.

About the recommendations, we will have to pay attention to success model such as the dual German model of education by handcraft; the community based social insurance in Senegal, the double use of school infrastructure for Adult School at night for instance, etc. There are many examples of institutions and structures that can be adequately reproduced in Benin. Pragmatic recommendations are in this case important for policy-designers and decision-makers. The ulterior capacity and capability to implement some or few recommendations depends heavily on the educational level of the officers, on the nature of incentives, on the access to resources and on the finance to support the implementation process. All these requirements are reflecting the type of institutional framework that is needed.

5 Study Plan

Over the theoretical discussion and orientation about the implications and consequences of the chapters on Health and Education in Benin, we should at first consider the work as a kind of puzzle. Each chapter that is treated is intercon-

nected with others. Let us give an example: *Health.* It doesn't only mean a good shape but it behalf: nutrition, insurance, clinical infrastructure near to people, cost, care prevention, education, etc. By getting through the chapter, we will begin with:

– At first with the approach of Benin in short. It will be an overview of the country and its research problem as its research objectives. On the way, we will notice that the social structures in the country do not facilitated i.e. upgraded the living standard of the citizens. In our case, this means that qualitative and primary health care or education must be self-paid, "out of pocket", what in turn leads to a huge selection and discrimination between citizens and from South to North regions of Benin. Later in the research, we will come to the point that education and health care, scholarship and social services are not mostly going or are not directed to the best students and to those in acute need. The most part is going to those with the best connexion and relation in State/Government. At this point, the answer to the question in the precedent chapter concerns the institutions of Benin. There are different and well-founded theories about the state of development and the institutions in Africa.

– The worst case is still happen in that, Benin doesn't have the Human Capital i.e. capacity and capability to administrate and to manage the countries although the institutional frames are still there. Furthermore, Benin has a big institutional, economic, social and political inequality and diversity from South to North part of the country; what in turn handicap the performances. The question that we should ask is: why Benin with all its efforts to reduce poverty and to upgrade its HC doesn't reach the most part of its population in need?

– The first effect of the program to upgrade life quality of people concerns the most vulnerable: the children. Therefore, we will review the so called "early childhood" in Benin.

From early childhood care, we will come to education as one of the vector of HCD. It is not a panace but a basic human need. Over the debate on the role of education in the promotion of women, self-reliance and independence, to provide opportunities for all to upgrade life quality and to secure the wealth of the societies, we should also consider the state of education in Benin. One can ask, how Benin, a country in the past called "*quartier latin*" of Africa is today less educated as in the past?

– Now, we will approach the institutional efforts of Benin in the case of income and employment which appear to be very important parameters to upgrade the living standard of the citizens. By being so, they are also the path of HCD.

The discussion on power distribution and ruling methods at this level will be followed by Benin political and economic programs of employment creation and income generating opportunities.

– In the following chapters, we will see that the structure of health care and of social institutions in Benin reflects the structure of the institutions in country. People have to go round to the problem in the aim to survive. The connected parameters to health are enormous. It begins with nutrition, prevention, access to drugs and social infrastructure, insurance, etc. Each of them seems to be a pillar to sustain health in the frame of HCD. Therefore, some anthropological and social field research may better expose the case of Benin.

– General Conclusion is in our case a matter of practical recommendations for policy-makers. It is a sample of propositions that may help to design and to implement an adequate program of HCD in the country; this, independently of the region and of the society concerned.

Briefly, this research is organized into seven (7) chapters.

Chapter 1: Introduction has brought the study into an academic framework and limited geography of Benin in West Africa.

Chapter 2: lays down the hypotheses and methods, especially how do you want to demonstrate what?

Chapter 3: is a brief review of the literature about human capital development with the focus on education and health. This chapter also highlights the relation, the links between both indicators.

Chapter 4: Education as one of the vectors of Human Capital Building analyses the state of education and its perspective. This in turn has an impact on individual capability to reduce poverty and on the wealth of society. Furthermore, this chapter will also approach the question on national strategies.

Chapter 5: The Weight of Employment and Income for Human Capital Development close the relationship between labour/income, health care, nutrition and education. Subsequently, the national policies, programs of employment creation and industrialization will be reviewed.

Chapter 6: Health and Nutrition sustaining of Human Capital Building contains the distribution of health care supply in the country after analyzing the state of national health of Benin. We will also approach the factors affecting demand of services such as the investments on adequate infrastructures, facilitated access to land for local staple foods, increase of people productivity.

Chapter 7: General Conclusion, What is to be learned beyond the case of Benin and the influences?

Chapter III: A Brief Review of the Literature

Since the independence in SSA, almost all countries English as French speaking have funded hopelessly education programs and campaigns. Several studies are in competition in form of pro and contra concerning education and health effect on growth. This in turn indicates that there are alternative methods to approach education and health within various definitions of human capital.

Nevertheless, the role of improved schooling[111], a central part of most development strategies, has become controversial because expansion of school attainment has not guaranteed improved economic conditions.

On the other side of growth theory, the relation or the link between on the one hand human capital improvements i.e. education and health and on the other hand economic growth results into complementarities of spending, show that they must be planed and increased together in the aim of efficiency and achievement of social objectives and quality of life. In Benin as in the rest of the SSA, the level of education, health and social well-being is one of the lowest in the World. In the future, Benin is obliged to seriously increase its investments in schooling and health regarding their impacts on social welfare, poverty reduction and productivity in competition with investments in infrastructure, environment, energy, etc. In this approach, we are going to see that the empirical impact of education and health on growth are quite mixed because, the plethora of results achieved by different authors depend on the variables used for the factors health and/or education as also depending on the empirical methodology used. Let us consider the relationship between education and economic growth. It comes up to two[112] different channels through which human capital can affect long run economic growth.

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[111] Kiani, Adiqa **Kausar**, in "The Role of Education on Economic Growth in Pakistan", Federal Urdu University of Arts, Science and Technology, Islamabad, Pakistan, 2010, 16th November 2016 at 1:00 PM under http://linc.mit.edu/linc2010/proceedings/session14Kiani.pdf

[112] Musibau Adetunji **Babatunde** and Rasak Adetunji **Adefabi** in "Long Run Relationship between Education and Economic Growth in Nigeria: Evidence from the Johansen's Cointegration Approach", Paper presented at the Regional Conference on Education in West Africa: Constraints and Opportunities Dakar, Senegal, November 1st - 2nd, 2005. Cornell University / CREA / Ministère de l'Education du Sénégal. At 5:15 PM, 15th November 2016, under http://www.saga.cornell.edu/saga/educconf/babatunde.pdf

The first channel is when human capital is a direct input in the production function as in endogenous growth theory and the second channel is when the human capital affects the technology parameter. Under these premises, a well-educated labour force appears to significantly influence economic growth both as a factor in the production function and through total factor productivity.
One of the question that we will try to answer is: do all levels of education or which level has positive and statistically direct effects on the growth rate and on per capita income?

1 Introduction

At the independence in the 60s, the president[113] of the World Bank at that time, during his speech at the United Nations advocated that education is still the cornerstone of development all over the world.
Whatever education can bring to a nation, the most important things are the rapid flexibility, mobility, communication and adaption of new imported[114] ideas and technology by the national labour force. These should be added to other positive externalities such as social well-being, health, entrepreneurial and political behaviors for instance. It is hard to foul an educated eyewitness. South Korea[115] experiences confirmed this approach.
Pritchett[116] argues that the excess supply of labour force, weakness of institutions, rent seeking by the public officers and low quality of education are the arguments that there is no correlation between education and growth.

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[113] See Eugene Black, President of the World Bank 1942-62, an Address to the United Nations Economic and Social Council, 1960.

[114] See Benhabib, J. and M. M. Spiegel, 1994, "The Role of Human Capital in Economic Development: Evidence from Aggregate Cross-Country Data." *Journal of Monetary Economics* 34: 143-173.

[115] In the 60th, South Korea was far behind many countries of SSA. Within 10 to 15 years, this country has catch up even overtaken its most leaders in SSA. Educated labour force is also a great incentive for foreign investment, so then a positive effect at macro level. In this line, it is very interesting to read World Bank, 1993, "The East Asian Miracle: Economic Growth and Public Policy" New York, Oxford University Press. This assumption is further developed by Romer (1990 as endogenous development where human capital is considered as qualitative input in production function and in 2000 with the quantity of inputs used in R&Ds) or later by Li, Xiaoying and Xiaming Liu, (2005) in, " Foreign Direct Investment and Economic Growth: An Increasingly Endogenous Relationship", World Development, vol. 33, no. 3, pp. 393-407).

[116] See Pritchett, L. 1997, "Where Has All the Education Gone?" Policy Research Paper 1581. The World Bank, Washington, D.C. Available http://www.worldbank.org.)

These aspects reduce incentives for foreign investments and increase corruption. This situation can never justify the cost of education. If we attain the quality of human capital i.e. education and how it is used in the "process of enhancing productivity"[117], we will conclude that the quality of education and the type of education are critical for growth. Whereas Krueger and Lindahl[118] decline the assumption of Pritchett because of the error in the calculation of educational attainment and for whom education may supposed to be or may suppose to serve (*qui bueno?).*

Whereas the argument of Behrman and Wolfe[119] say that a mother's education level affects positively her own and her children's health and nutrition, medical care, household water and sanitation. Her education level influences her whole behaviour. Fogel[120].also confirms this.

Who can seriously compare a year of school in Benin with the same year in OECD countries without be shamed? In fact, the year has 365 days all over the world but in its quality, there is a huge difference in each topic and theme between Benin and the OECD countries. It is a simple matter of quality. This quality upgrades health and educational outcome/output so then economy. Benin was well-known as the country with the best education, the "quartier latin" of Africa. Since the so-called Marxist-Leninism of the 70s, the level of education in Benin is still decreasing, so that the education that most Beninese receives is less than average. The overcrowded classes i.e. pupils/teacher ratio, the bad public infrastructure, the lack of incentives for the teachers are such a reasons that make for instance the primary education level inefficient and not sufficient.

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[117] See "Education's Contribution to the Economic Growth of Sub-Saharan Africa" by Seid Hassan, Murray State University and Hanane Ahmed, George Washington University, in Southwestern Economic Review, under http://swer.wtamu.edu/sites/default/files/Data/174-190-43-154-1-PB.pdf.

[118] See Krueger, Alan, B., and Michael Lindahl. 2001, "Education and Growth: Why and For Whom?" Journal of Economic Literature 39(4): 1101-1136.

[119] See Behrman, J. R and Wolfe, B. L. 1987, "How Does Mother's Schooling Affect Family Health, Nutrition, Medical Care Usage, and Household Sanitation", by Journal of Econometrics. Available from http://www.researchgate.net/publication/222599771_How_Does_Mother's_Schooling_Affect_Family_Health_Nutrition_Medical_Care_Usage_and_Household_Sanitation [accessed Nov 14, 2015].

[120] See Fogel, Robert W. 2004, "Health, Nutrition, and Economic Growth." *Economic Development and Cultural Change* 52(3): 643-58).

It is quite not surprising that in its retrospective, Easterly[121] has listed the factors slowing development in SSA. One of the main factors is the low school attainment (following by political instability, poorly developed financial systems, large black-market exchange-rate premia, large government deficits, and inadequate infrastructure). Later on, Easterly[122] argues on the brain-drain phenomenon that purely impoverish the labour market in SSA as elsewhere, so then the nation is not able to develop due to the lack of well-educated workers. A plethora of studies has shown that education, health and growth were treated separately as Gyimah-Bempong and Wilson[123] has done in case of health.

It is possible in a second step to compare[124] the education growth effect to the health growth effect. Considering education, there is again two different approaches to be taken into account: educational quality in form of knowledge and skills vs. schooling. We are not going to prospect other correlated factors of development but we will rather stick on quality of education as a whole; among other things, how teacher quality has powerful impacts on student outcomes.

Benin has the potential to build a prosperous economy, reduce poverty significantly, and provide the health, education, and infrastructure services that its population needs because it has a large and young reserves of human and a huge amount of unexploited natural resources, but Benin is still one of the poorest country on earth. All over Benin, poverty is seen in rural and urban areas with a heavy burden for rural areas. As we can read by Amaghionyeodiwe and Osinubi[125]; "… The poor lack an adequate level of education and cannot satisfy their basic health needs. As such the poor are often illiterate, in poor health and have a short life span…". It said that a good way of generating economic growth is through educational development as rooted in the endogenous

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[121] See Easterly W. and Levine R. August 1995, "Africa's Growth Tragedy: A Retrospective, 1960-89" World Bank Policy Research Working Paper no. 1777.

[122] See Easterly, William. 2001, "Education for What?" in Easterly, William. *The Elusive Quest for Growth: Economists Adventures and Misadventures in the Tropics*. Cambridge: The MIT Press.

[123] See Gyimah-Brempong, K., and M. Wilson, 2004, "Health and Economic Growth in Sub-Saharan African and OECD Countries," *Quarterly Review of Economics and Finance*, 44, 296-320.

[124] See "Education, health and economic growth in african countries" by Jude Eggoh *a,b*, Hilaire Houeninvo *b* and Gilles-Armand Sossou *b*, (aUniversité d'Angers, France, bUniversité d'Abomey-Calavi, Benin) in* Journal of economic development, vol. 40, Number 1, March 2015. Under http://www.jed.or.kr/full-text/40-1/4.pdf.

[125] See Amaghionyeodiwe, L., A. and T.S. Osinubi, 2004, "Poverty Reduction Policies and Pro-Poor Growth in Nigeria". Department of Economics, University of Ibadan. Nigeria.

growth theory[126]. There is a strong theoretical basis for a key role of human capital: education as a whole in economic growth particularly in the endogenous growth theory. Romer[127] et al.[128] argues that the output of R&D is a direct function of human capital based on its own knowledge.

The focus on one parameter will bias the whole theory of growth. Let us consider following assumption. The assumption is that growth depends on the accumulation of human capital (including education, training, and health). Nevertheless, physical capital plays also an essential but definitively subsidiary[129] role. If it is so, what explains the large differences in income growth rates among African countries?[130]

Some researchers lay the cornerstone on research and development as the source of growth[131], others argue that primary education is the major source of economic growth[132]. According to McMahon[133], it will be an error in a long

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126 "Endogenous growth economists believe that improvements in productivity can be linked to a faster pace of innovation and extra investment in human capital. Endogenous growth theorists argue the need for government and private sector institutions and markets which nurture innovation, and provide incentives for individuals to be inventive. There is also a central role for knowledge as a determinant of economic growth. Endogenous growth theory predicts positive externalities and spillover effects from development of a high valued-added knowledge economy, which is able to develop and maintain a competitive advantage in growth industries in the global economy". Quoted in, "Long Run Relationship between Education and Economic Growth in Nigeria: Evidence from the Johansen's Cointegration Approach" by Musibau Adetunji Babatunde and Rasak Adetunji Adefabi, Paper presented at the Regional Conference on Education in West Africa: Constraints and Opportunities Dakar, Senegal, November 1st – 2nd, 2005. Cornell University/CREA/Ministère de l'Education du Sénégal. Under http://www.saga.cornell.edu/saga/educconf/babatunde.pdf.

127 See Romer, P. M, 1990. Endogenous Technological Change." Journal of Political Economy, 98, S71-S102.Statistics, 52, 169-210.

128 See Romer, P. M, 1986, "Increasing Returns and Long run Growth". Journal of Political Economy, 94, 1002-37. Lucas, R. E, 1988. On the Mechanics of Economic Development, Journal of Monetary Economics, 22, 3-42. Quah, D and J.E. Rauch (1990), "Openness and the Rate of Economic Growth." Journal Development of Studies. vol. 49 (2). Pp 307-335. Grossman, G and Helpman (1991) Innovation and Growth in the Global Economy. Cambridge, MIT Press, 1991. Rivera-Batiz, L.A and P.M Romer (1991), "Economic Integration and Endogenous Growth". Quaterly Journal of Economics. 106, 531-555.

129 See Lucas, R. 1988, On the mechanics of economic development, Journal of Monetary Economics, 22, pp. 3-42.

130 See Temple, J. 1999, for an excellent review of the modern growth literature in The new growth evidence, Journal of Economic Literature, 37(1), pp. 112-56.

131 See Hall, R.E. and Jones, C. 1999: Why do some countries produce so much more output per worker than others?, Quarterly Journal of Economics, 114(1), pp. 83-116; Romer, P. 1990: Human capital and growth: theory and evidence, Carnegie-Rochester Congerence Series on Public Policy, 32, pp. 251-86; Nelson, R. and Phelps, E. 1966: Investment in humans, technological diffusion and economic growth, American Economic Review, 61, pp. 69-75.

132 See Petrakis, P.E. and Stamatakis, D. 2002: Growth and educational levels: a comparative analysis, Economics of Education Review, 21(5), pp. 513-21.

run to pay only attention to the primary school level because after 5-6 years, pupils begin their secondary level, so then this later level of education becomes more important for the growth process as for only the income level. In this context, about the choice of educational policy: what level of education deserves more? First, this debate over the relative importance of various levels of education is important. Second we cannot approach others considerations because the focus is on level of education.

One must keep in focus the private and social returns. Based on returns to education, in the competition of primary vs. high education, there have been suggestions that primary education should be supported at the expense of higher education since the social returns to primary are much higher[134] than those to high education. Despite the huge amount of resources allocated to higher education, African countries continue to hard reach a relative low stock of higher education human capital. The reasons are to be found in the inefficient high educational process and mostly due to emigration[135] of high-educated Africans. "The effects of emigration on the loss of higher education human capital to African countries are likely to exceed what the numbers indicate. Generally, the emigrants are likely to be the most capable, the most productive, and the most energetic; who are most likely to succeed in an internationally competitive labour market. They are the ones who may contribute the most to African economic growth"[136]. More educated human capital should be utilised to spur faster economic growth in Africa. Policy efforts should focus on how to efficiently produce more, retain more and productively employ more educated human capital at all levels.

The regional gross enrolment rate for higher education in SSA stands at only 5 %. The Dakar summit on "Education for All" in 2003 has advocated that

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[133] See McMahon W.W. (2002) Education and Development: Measuring the Social Benefits (Oxford, England: Oxford University Press).

[134] See Pissarides, C.A. 2000, for an excellent summary of some of these studies in Human Capital and Economic Growth: A Synthesis Report, OECD Development Centre Technical Papers no.168, Paris: OECD.

[135] See Easterly W. and Levine R. August 1995, "Africa's Growth Tragedy: A Retrospective, 1960-89" World Bank Policy Research Working Paper no. 1777. Easterly, William. 2001, "Education for What?" in Easterly, William. *The Elusive Quest for Growth: Economists Adventures and Misadventures in the Tropics*. Cambridge: The MIT Press.

[136] Quoted by, "Higher Education and Economic Growth in Africa" notes 14 by KWABENA GYIMAH-BREMPONG, OLIVER PADDISON & WORKIE MITIKU, Final version received January 2005; Journal of Development Studies, vol. 42, no. 3, 509–529, April 2006; At http://economics.usf.edu/PDF/higher.education.growth.africa.jds06.pdf.

only primary education can be considered as a driver of broad social welfare, so then, education build up or is the basis, a ladder out of poverty. In this context, Milton Friedman, Gary Becker[137], and Jacob Mincer first developed "human capital" theory. They analyze the benefits of individuals and society return. Later on, Milton and Rose Friedman[138] doubt that high education only can be a guaranty for social welfare.

Rather, the will to participate to every decision making process, "to keep own life in own hand" leads to social unrest und to political instability. Contrary to this later assumption, new evidences[139] provide the arguments that higher education is a determinant as well as a result of income increase in private as in public mean.

Under this premise, SSA needs urgently new innovative solutions for high education. In 2003, this problem was already highlighted at the "Africa Regional Training Conference on Tertiary Education" organized by the World Bank[140].

Kofi Annan[141] argued heavily on the externalities of high education. This form of education must become a primary tool for Africa's development in the next century[142].

2 Education, Health & Growth: An Overview of the Literature

In this paragraph, the review of previous work will be neither comprehensive nor detailed. Detailed as so far to understand the different points of view of the researchers.

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137 See Gary S. Becker January 1994 in, "Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education Chapter II: Human Capital Revisited, 3rd Edition, p. 15-28, The University of Chicago Press.

138 See Milton and Rose Friedman (1980): Free to Choose: A Personal Statement. New York: Harcourt, Brace and Jovanovich, p. 34.

139 See DE Bloom, M Hartley, and H Rosovsky (2006): "Beyond Private Gain: The Public Benefits of Higher Education". In James J. F. Forest and Philip G. Altbach, eds., International Handbook of Higher Education.

140 See World Bank (2004): "Improving Tertiary Education in Sub-Saharan Africa: Things That Work." Report of a regional training conference held in Accra, Ghana, September 22-25, 2004. Papers and final report available at www.worldbank.org/afr/teia.

141 The former UNO General Secretary.

142 See United Nations Information Service (2000): "Information Technology Should be Used to Tap Knowledge from Greatest Universities to Bring Learning to All, Kofi Annan Says." Press Release No: UNIS/SG/2625. August 3, 2000. Internet: http://www.unis.unvienna.org/unis/pressrels/2000/sg2625.html (Last accessed: 6.5.2005).

If Mankiw[143] argumentations were based on the result that almost 80 % growth of the GDP is due to the increase of physical and human capital i.e. education, Bils and Klenow[144] claim that for the explanation of growth, the correlation between schooling and growth is weak. Barro and Sala-i-Martin[145] did not fund expressive values for secondary and tertiary education in the mean of growth per capita whiles the inverse is the assumption of Behrman and Wolfe[146] and Dasgupta and Weale[147]; where adult literacy level has a direct and sensible impact on outputs particularly for mother. Some other studies put the accent on primary education as the booster of growth compared to secondary and tertiary education.

Barro-Lee a & b[148] show "that physical capital per worker has a positive and large impact on the growth rate of output per worker (positive and large physical capital per worker coefficient), while the coefficient for educational capital's contribution to the growth rate of output per worker was negative"[149].

Since the 1980s and 1990s, the endogenous growth models based on education become very important particularly in the expanded neoclassical growth model of Mankiw, Romer and Weil (MRW[150]). Moreover, human capital is considered as an input that has a huge positive effects on output over R&D, new

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143 See Mankiw, N. G. 1995: "The growth of nations." Brookings Papers on Economic Activity 1995(1): 275-326.

144 See Bils, Mark, and Peter J. Klenow, 2000: "Does schooling cause growth?" American Economic Review 90(5): 1160-1183.

145 See Barro, R.J., and X. Sala-i-Martin (1995), Economic Growth, NY: McGraw.

146 See Behrman, J. R and Wolfe. Barbara L. 09/1987 "How Does Mother's Schooling Affect Family Health, Nutrition, Medical Care Usage, and Household Sanitation", by Journal of Econometrics. Available from: http://www.researchgate.net/publication/222599771_How_Does_Mother's_Schooling_Affect_Family_Health_Nutrition_Medical_Care_Usage_and_Household_Sanitation [accessed Nov 14, 2015].

147 See DASGUPTA P. and WEALE M, 1992, "On Measuring the Quality of Life", World Development, vol. 20, no. 1, pp. 119-131, under http://people.ds.cam.ac.uk/mb65/documents/dasgupta-weale-1992.pdf.

148 See Barro, R. J., and Jong-Wha Lee. 2001a, "International data on educational attainment: updates and implications." Oxford Economic Papers 53(3): 541-63; Barro. R. J. and Lee, Jong-Wha, and 2001b, "Schooling quality in a cross-section of countries." Economica 68(272): 465-88.

149 See "Education's Contribution to the Economic Growth of Sub-Saharan Africa" by Seid Hassan, Murray State University and Hanane Ahmed, George Washington University, in Southwestern Economic Review, under http://swer.wtamu.edu/sites/default/files/Data/174-190-43-154-1-PB.pdf.

150 See Mankiw, N.G., Romer, D. and Weil, D.N. (1992) A contribution to the empirics of economic growth, Quarterly Journal of Economics, 107(2), pp. 407-37.

technology, processes and skills as we can mention by other authors such as Nelson and Phelps, Lucas, Romer a & b, Aghion and Howitt[151].

Further, human capital accumulation facilitates the import substitution[152] of foreign technology and processes or it secures the efficient transfer of resources to the most technologically dynamic sector of the economy as in China[153].

With the smallest level of education, whatever this level is, it is still possible to calculate its economic growth impact as argue Azariadis and Drazen[154], and Rebelo. While Benhabib and Spiegel[155] focus their arguments on the indirect economic growth effects through technical progress. The most level achieved in SSA is the primary one. At the overall low level of education in SSA, for the first period, it may be easy to find a positive relationship between primary school enrolment rates and growth rate of GDP per capita as by Artadi and Sa-la-i-Martin[156]. For those high-educated citizens in SSA, almost the half of them is looking at a job or rent seeking[157] activities. They even turn their position in public administration into nepotism. By doing so, they bias the established sys-

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[151] See Nelson, R. and Phelps, E. 1966, in "Investment in humans, technological diffusion and economic growth", American Economic Review, 61, pp. 69-75; Lucas, R. 1988, On the mechanics of economic development, Journal of Monetary Economics, 22, pp. 3-42; Romer, P. 1986a, Increasing returns and long-run growth, Journal of Political Economy, 94(5), pp. 1002-38; Romer, P. 1990b, Human capital and growth: theory and evidence, Carnegie-Rochester Congerence Series on Public Policy, 32, pp. 251-86; Aghion, P. and Howit, P. 1998, Endogenous Growth Theory (Cambridge, MA: MIT Press).

[152] See Barro, R.J. (1997) Determinants of Economic Growth: A Cross-Country Study (Cambridge, MA: MIT Press). Barro, R.J. (1999) Human capital and growth in cross-country regressions, Swedish Economic Policy Review, 6(2), pp. 237-77; Barro and Sala-i-Martin, 1995; Barro, R. and Sala-i-Martin, X. (1995) Economic Growth (New York: McGraw-Hill); Sala-i-Martin, 1997; Sala-i-Martin, X. (1999) 'I just run two million regressions, American Economic Association Papers and Proceedings, 87(2), pp. 178-83. Hall and Jones, 1999 Hall, R.E. and Jones, C. (1999) Why do some countries produce so much more output per worker than others?, Quarterly Journal of Economics, 114(1), pp. 83-116.

[153] See Kim, S. and Kim, Y. 2000, Growth gains from trade and education, Journal of International Economics, 5(2), pp. 519-45; Schiff, M. and Wang, Y. 2004, Education, Governance and Trade-Related Technology Diffusion in Latin America, IZA Discussion Paper no.1028. Bonn: IZA.

[154] See Azarriadis, C. and Drazen, A. (1990) Threshold externalities in economic development, Quarterly Journal of Economics, 105, pp. 501–26; Rebelo, S. (1991) Growth in Open Economies, World Bank Policy Paper no.678, World Bank: Washington, DC.

[155] See Benhabib, J. and Spiegel, M. 1994, The role of human capital in economic development: evidence from aggregate cross-country data, Journal of Monetary Economics, 34, pp. 143-73.

[156] See Artadi, E.V. and Sala-i-Martin, X. 2003, The Economic Tragedy of the XXth Century: Growth in Africa, NBER Working Paper no.9865 (Cambridge, MA: NBER).

[157] See Berthelemy, J., Pissarides, C. and Varoudakis, A. 2000, Human capital and growth: the cost of rent socking activities, in M.S. Oosterbann, T.R. van Steveninck, and N. van der Windt (eds.) Economic Growth and its Determinants (Dordrecht: Kluwer Academic Press) and see Rogers, M. 2003, Directly Unproductive Schooling: How Country Characteristics Affect the Impact of Schooling on Growth, working Paper, Oxford University.

tem of meritocracy.

Education effect can be directly also indirectly registered through income level as in the assumption of McMahon[158]. No worker could ever achieve an income growth without adequate health care, nutrition, healthy and protected environment, investment in physical capital and democracy. It doesn't mean that these are the effects of high education[159] on growth, although high education may obviously contribute to growth.

Ceteris paribus and based on income growth, it can also be said that the higher the level of education which ever (primary, secondary and tertiary), the stronger the growth impact[160] i.e. depending on the level of development[161]; for instance primary and secondary level of education for SSA and tertiary education for OECD countries. From a low 1 %[162] in the 60th, high education in SSA increases but is still one of the lowest of the world by only 5 %[163].

While the primary and secondary education are still better off for poverty alleviation and for upgrading life quality because their social and economic returns to investments are higher than those of higher education; the focus first lays on those lower levels.

Further, the access to the primary and secondary level are easier than to high education; so then the discussion on higher education turns to be in this case a hopeless topic for government and enrolment into the higher education are not promoted as in lower level. That is also the case in Benin. Benin is still making a great effort by insuring a legal framework[164] for high education and by inte-

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158 See McMahon, W.W. 1987, The relation of education and R&D to productivity growth in the developing countries of Africa, Economics of Education Review, 6(2), pp. 183-194.

159 See Appiah, E.N. and McMahon, W. 2002, The social outcomes of education and feebacks on growth in Africa, Journal of Development Studies, 38(4), pp. 27-68.

160 See Agiomirgianakis, G., Asterious, D. and Monastiriotis, V. 2002, Human capital and economic growth revisited: a dynamic panel data study, International Advances in Economic Research, 8(3), pp. 177-87 and see Voon, J.P. 2001**,** Measuring social returns to higher education investment in Hong Kong: Production function approach, Economics of Education Review, 20(5), pp. 503-10.

161 See Petrakis, P.E. and Stamatakis, D. 2002, Growth and educational levels: a comparative analysis, Economics of Education Review, 21(5), pp. 513-21.

162 See the report of the Task Force on Higher Education and Society (TFHE) (2000): Higher Education in Developing Countries: Peril and Promise. World Bank, Washington DC.

163 The available data are online from UNESCO (www.uis.unesco.org) mostly for 2002/2003.

164 High Education Law in Benin. Benin Poverty Reduction Strategy Paper Summaries March 6, 2003: The goal is to provide equal student opportunity for all, strengthening of the quality of education, strengthening the institutional framework, training for self-employment, regulation of flow rates at all levels, and control of the cost of education. Higher education goals include improving working conditions and student living conditions, and strengthening the quality of higher education and research. The latter includes strengthening tertiary

grating high education into its *Poverty Reduction Strategy Papers.* By getting through those papers, one concludes that the infrastructural as super structural handicaps do not facilitate the use of high education as a booster of economic growth. Moreover, "brain-drain" and emigration are worsening the situation.

The United Nations Conference on Trade and Development (UNCTAD) estimates that roughly 30 % of the region's university-trained professionals live outside Africa[165]. A recent estimate suggests that up to 50,000 African-trained Ph.D.s are working outside Africa[166]. Education at all levels contributes not only to economic growth but also in daily life behaviors, health and specific purposes such as democracy or family planning. These results can only be qualitative according to the amount of time allocated to educational process as by Lucas[167].

Based on these arguments, Rebelo[168] later develops a model by adding physical capital as an additional input in the accumulation function. The Human Capital Accumulation Function has also other supporters and a plethora of studies. For instance[169] how this accumulation can affect growth or recently how it is the source of economic growth? According to Gupta and Chakraborty, there is even an indirect assistance from rich people to poor people. "Rich individuals allocate labour time not only for their own production and knowledge accumulation but also train the poor individuals in form of "multiplicator" in earn-

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education and promoting research, introducing undergraduate programs and more relevant professional education programs, and helping disadvantaged groups (minorities, low-income families). Document cadre de Politique educative (Law of political education) (Education Act 75-30) (1975) Benin – Education System http://www.lmu.edu/globaled/wwcu/background/bj.rtf. Original source: International Association of Universities (IAU), updated from IBE website, 2001 (except for Ministry of Higher Education and Scientific Research, updated 2003).

165 See InterAcademy Council (2004): Realizing the Promise and Potential of African Agriculture. Amsterdam: InterAcademy Council: 180.

166 See Jean-Jacques Cornish, June 13, 2005, "Blair, the colonial governor?". Mail & Guardian Online. South Africa.

167 See Lucas, R. E., 1988. On the Mechanics of Economic Development, Journal of Monetary Economics, 22, 3-42.

168 See Rebelo, S., 1991, "Long-run Policy Analysis and Long run Growth", Journal of Political Economy. 99, 500-521.

169 See Barro R. J. and Lee J.-W., 1993 a, "Losers and Winners in Economic Growth", NBER Working Paper no. 4341, Issued in April 1993, NBER Program(s): EFG, at http://www.nber.org/papers/w4341 Barro, R. J. and Lee J.-W., 1993b, "International comparisons of educational attainment", Journal of Monetary Economics, vol. 32, Issue 3, pp. 363-394; Benhabib, J. and M. Spiegel, 1994, "The Role of Human Capital in Economic Development: Evidence from Aggregate Cross-Country Data", Journal of Monetary Economics 34, 143-173; Gupta, M.R and B. Chakraborty 2004, "Human Capital Accumulation and Endogenous Growth in a Dual Economy". Economic Research Unit. Indian Statistical Institute. Kolkata-700108. West Bengal, India.

ing/work/behavior process". Bratti[170] et al. analyze the countries at different stage of development in relation to their human capital accumulation. The countries were taken at primary and secondary education level, demographic variable such as birth rate, geographical areas that have a direct impact on human capital accumulation so then on growth of productivity (i.e. economic growth). For the same purpose: growth of productivity, Haouas and Yagoubi[171] rather pay attention to openness and human capital as sources of growth of productivity. In the same line well-educated[172] workers have a positive and direct impact on economic growth. This happen simultaneously over accumulation and total factor productivity. How schooling has an impact on individual earning can be analyzed in detail in a variety of studies[173]. Regrettably, we have to keep this point short, as overview in our thesis.

The list of externalities by an educated people or citizens is very diversified and wide. A variety of studies on these externalities were published. For instance,

- in the improvement of civic participation[174]
- in the improvement of mother fertility and health of children[175]
- in the reduction of crime[176]

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[170] See Bratti, M., A. Bucci and E. Moretti 2004, "Demographic Trends, Human Capital and economic Growth in Developing Countries: Theory and Evidence". University of Ancona, Department of Economics, Ancona, Italy.

[171] See Haouas, I. and M. Yagoubi 2005, "Openness and Human Capital as sources of Productivity Growth: An Empirical Investigation from the MENA Countries" IZA Discussion Paper no. 1461.

[172] See Loening, L J 2002, "The Impact of Education on Economic Growth in Guatemala" Ibero-America Institute for Economic Research (IAI) Universität Göttingen.

[173] See Psacharopoulos, George. 1994, "Returns to investment in education: A global update." *World Development* 22, no.:1325-1344. Card, David, 1999. "Causal effect of education on earnings." In *Handbook of labor economics*, edited by Orley Ashenfelter and David Card. Amsterdam: North-Holland: 1801-1863. Psacharopoulos, George, and Harry A. Patrinos. 2004, "Returns to investment in education: a further update." *Education Economics* 12, no. 2 (August):111-134. Heckman, James J., Lance J. Lochner, and Petra E. Todd. 2006, "Earnings functions, rates of return and treatment effects: The Mincer equation and beyond." In *Handbook of the Economics of Education*, edited by Eric A. Hanushek and Finis Welch. Amsterdam: North Holland: 307-458 and Harmon, Colm, Hessel Oosterbeek, and Ian Walker. 2003, "The returns to education: Microeconomics." *Journal of Economic Surveys* 17, no. 2:115-155, who systematically review the topic for OECD countries and conclude that it is clear that there is a strong causal impact of school attainment on earnings.

[174] See Dee, Thomas S. 2004, "Are there civic returns to education?" *Journal of Public Economics* 88, no. 9-10 (August):1697-1720; Milligan, Kevin, Enrico Moretti, and Philip Oreopoulos. 2004, "Does education improve citizenship? Evidence from the United States and the United Kingdom." *Journal of Public Economics* 88, no. 9-10 (August): 1667-1695.

[175] See Currie, Janet, and Enrico Moretti. 2003, "Mother's Education and the Intergenerational Transmission of Human Capital: Evidence from College Openings." *Quarterly Journal of Economics* 118, no. 4: 1495-1532.

- about direct production spillovers of education among workers[177]
- but there is no evidence of spillovers by Acemoglu and Angrist[178]
- about the social rate of return on education in relation to private rate of return[179].

If we accept that "… human capital is the stock of knowledge, competence, health, training, including creativity and other investments, embody the ability to perform labour tasks more productively"[180], we are getting closer to the endogenous growth model developed by Lucas [181] and Romer[182] using human capital as input in a production function. Lucas focus on education accumulation or stock whereas Romer tends to Research & Development (R&D). The point of controversy is already positioned, because is nearby impossible to examine or to analyze education without health in human capital development, both are too linked.

Some other approaches of Mankiw et al.[183], Barro, R.J., and X. Sala-i-Martin[184], Maksymenko, S., and A. Rabani[185], Hanushek, E.A., and D.D. Kimko[186], Dessus, S.[187], are focusing education as it has happened in India, Singapore or South Korea and the quality of the proposed education for instance

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176 See Lochner, Lance, and Enrico Moretti. 2004, "The Effect of Education on Crime: Evidence from Prison Inmates, Arrests, and Self-Reports." *American Economic Review* 94, no. 1: 155-189.

177 See Moretti, Enrico. 2004, "Workers' Education, Spillovers, and Productivity: Evidence from Plant-Level Production Functions." *American Economic Review* 94, no. 3: 656-690.

178 See Acemoglu, Daron, and Joshua D. Angrist. 2000, "How large are the social returns to education? Evidence from compulsory schooling laws." In *NBER Macroeconomics Annual 2000*, edited by Ben S. Bernanke and Kenneth Rogoff. Cambridge, MA: MIT Press:9-59. and Ciccone, Antonio, and Giovanni Peri. 2006, "Identifying human capital externalities: Theory with Applications." *Review of Economic Studies* 73, no. 2 (April): 381-412.

179 See Psacharopoulos, George, and Harry A. Patrinos. 2004, "Returns to investment in education: a further update." *Education Economics* 12, no. 2 (August): 111-134.

180 See "Education, health and economic growth in african countries" by Jude Eggoh *a,b*, Hilaire Houeninvo *b* and Gilles-Armand Sossou *b*, (aUniversité d'Angers, France, bUniversité d'Abomey-Calavi, Benin) in* Journal of Economic Development, vol. 40, no. 1, March 2015. Under http://www.jed.or.kr/full-text/40-1/4.pdf.

181 See Lucas, R. 1988, "On the Mechanics of Economic Development," *Journal of Monetary Economics*, 22(1), 3-42.

182 See Romer, P.M. 1990, "Endogenous Technological Change," *Journal of Political Economy*, 98(5), S71-S102.

183 See Mankiw, N.G., D. Romer, and D.N. Weil 1992, "A Contribution to the Empirics of Economic Growth," *Quarterly Journal of Economics*, 107, 407-437.

184 See Barro, R.J., and X. Sala-i-Martin 1995, *Economic Growth*, NY: McGraw.

185 See Maksymenko, S., and A. Rabani 2011, "Economic Reforms, Human Capital, and Economic Growth in India and South Korea: A Cointegration Analysis," *Journal of Economic Development*, 36(2), 39-59.

186 See Hanushek, E.A., and D.D. Kimko 2000, "Schooling, Labor-Force Quality and the Growth of Nations," *American Economic Review*, 90(5), 1184-1208.

187 See Dessus, S. 2001, "Human Capital and Growth: The Recovered Role of Educational System," Working Paper, 2632, World Bank.

have found significant impact on economic growth. The controversy was already on desk with Caselli et al.[188] as leader. Benhabib and Speigel[189], Pritchett[190] and Kumar[191] came immediately and didn't found a substantial link between educational level of labour force and economic growth.

Behbudi et al.[192] rather find a relation between natural resource[193] abundance and economic growth. In the case of China, Chi[194] neither the stock nor the accumulation of education has a significant and direct impact on per capita growth but physical capital investment.

As it has happened with education, a huge amount of studies focused health effects on economic growth ignoring the correlation effect of education level with individual state of health as by Fogel[195] about nutrition and health in England, Knowles and Owen[196] and Barro[197] on life expectancy and health indicators, later confirmed by McDonald and Roberts[198], Jamison et al.[199] assumption based on survival rate, Gallup and Sachs[200] on illness such as malaria, Ains-

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188 See Caselli, F., G. Esquivel, and F. Lefort 1996, "Reopening the Convergence Debate: A New Look at Cross-Country Growth Empirics," *Journal of Economic Growth*, 1(3), 363-389.

189 See Benhabib, Jedss, and Mark M. Spiegel. 1994, "The Role of Human Capital in Economic Development: Evidence from Aggregate Cross-Country Data." *Journal of Monetary Economics* 34: 143-173.

190 See Pritchett, L. 1996, "Where Has all the Education Gone?" Policy Research Working Paper, 581, World Bank, Washington.

191 See Kumar, C.S. 2006, "Human Capital and Growth Empirics," *The Journal of Developing Areas*, 40(1), 153-179.

192 See Behbudi, D., S. Mamipour, and A. Karami 2010, "Natural Resource Abundance, Human Capital, and Economic Growth in Petroleum Countries," *Journal of Economic Development*, 35(3), 81-102.

193 See for instance the particular case of Nigeria (petroleum), Ghana (gold, diamond, silver), Guinea Conakry (bauxite) Equatorial Guinea (oil) by fixed attention on export.

194 See Chi, W. 2008, "The Role of Human Capital in China Economic Development: Review and New Evidence," *China Economic Review*, 19, 421-436.

195 See Fogel, R.W. 1994, "Economic Growth, Population Theory, and Philosophy: The Bearing of Long-Term Processes on the Making of Economic Policy," *American Economic Review*, 84(3), 369-395.

196 See Knowles, S., and P.D. Owen 1995, "Health Capital and Cross-Country Variation in Income per Capita in the Mankiw-Romer-Weil Model," *Economics Letters*, 48, 99-106.

197 See Barro, R.J. 1996, *Health and Economic Growth*, Mimeo.

198 See McDonald, S., and J. Roberts 2002, "Growth and Multiple Forms of Human Capital in an Augmented Solow Model: A Panel Data Investigation," *Economics Letters*, 74, 271-276.

199 See Jamison, D.T., Lau, L.J., and J. Wang 1998, "Health's Contribution to Economic Growth, 1965-1990", in *Health, Health Policy and Health Outcomes: Final Report, Health and Development Satellite WHO Director-General Transition Team* (Geneva: World Health Organization): 61-80.

200 See Gallup, J., and J. Sachs 2000, "The Economic Burden of Malaria," Center for International Development Working Paper, 52, Cambridge, MA: Harvard University.

worth and Over[201] also with epidemic such as HIV/AIDS, Gyimah-Brempong[202] argues on the amount of budget allocated to health and growth, Mayer[203] and Arora[204] make sure that in long term health boost economy.

Webber[205] concludes that the enrolment rate for primary, secondary and tertiary education favor investment in education over health as Ram[206] with the effect of IQ on growth. Li and Huang[207] in 28 provinces in China on education and health concluded that health has often contributed more to economic growth than education. Later, Li and Huang[208] confirm the same result for 11 East Asia countries. These results indicate that the effect of health stock on growth is subject to diminishing marginal returns.

Gyimah-Brempong and Wilson[209] "also show that both human capital development indicators have a positive and significant effect on the growth of per capita income for sub-Saharan African and OECD countries"[210].

3 Corruption in Education[211]

Corruption in education is big problem that is intentionally ignored. As in OECD countries, parents are less involved in government school activities i.e.

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201 See Ainsworth, M., and M. Over 1994, "Aids and African Development," *World Bank Research Observer*, 9(2), 203-240.

202 See Gyimah-Brempong, K. 1998, "The Political Economy of Budgeting in Africa: 1971-1991," *Public Budgeting and Fiscal Management*, 4(4), 590-616.

203 See Mayer, D. 2001, "The Long-Term Impact of Health on Economic Growth in Latin America," *World Development*, 29(6), 1025-1033.

204 See Arora, S. 2001, "Health, Human Productivity, and Long-Term Economic Growth," *The Journal of Economic History*, 61(3), 699-749.

205 See Webber, D.J. 2002, "Policies to Stimulate Growth: Should We Invest in Health or Education," *Applied Economics*, 34, 1633-1643.

206 See Ram, R. 2007, "IQ and Economic Growth: Further Aaugmentation of Mankiw-Romer-Weil Model," *Economics Letters*, 94, 7-11.

207 See Li, H., and L. Huang 2009, "Health, Education and Economic Growth in China: Empirical Findings and Implication," *China Economic Review*, 20(3), 374-387.

208 See Li, H., and L. Huang 2010, "Health, Education, and Economic Growth in East Asia," *Journal of Chinese Economic and Foreign Trade Studies*, 3(2), 110-131.

209 See Gyimah-Brempong, K., and M. Wilson 2004, "Health and Economic Growth in Sub-Saharan African and OECD Countries," *Quarterly Review of Economics and Finance*, 44, 296-320.

210 See "Education, health and economic growth in african countries" by Jude Eggoh *a,b*, Hilaire Houeninvo *b* and Gilles-Armand Sossou *b*, (aUniversité d'Angers, France, bUniversité d'Abomey-Calavi, Benin) in* Journal of Economic Development, vol. 40, no. 1, March 2015. Under http://www.jed.or.kr/full-text/40-1/4.pdf.

211 See table 1: Corruption in education page 4 in:, "Africa education watch good governance lessons for primary education" by Laetitia Antonowicz, Frédéric Lesné, Stéphane Stassen and John Wood, Transparency International, 2010, at www.transparency.org.

from children garden up to university. This lack of overseer in SSA and especially in Benin leads to enormous corruption at every levels.

The allocated resources, the records, the accountability and transparency of the documentation are not constantly controlled to prevent corruption. From the secondary level up to university, scholarship is based at the profit of well-situated people (public officers, politicians, etc.). Illegal fees are collected periodically by the director of school as by the teacher of the classroom under the pretext of M&R, special teaching material, working fund, etc. Whereas the director as the teachers do not prepare a half year and/or a year accountability on the allocated resources because they embezzle the school funds, they use every opportunity to *"catch money"* at the expense of the poor and illiterate parents. The most scandalous problem with corruption is the power abuse that begins with management and accountability incompetence over absenteeism and alcoholism to the top girl sexual abuse in schools from teachers.

4 Conclusion

Along these 3 chapters, we have surely notice the link between education and health. A healthier population is also that one, who has access to health information and care, ergo a population that has education. As we have seen in this chapter 3, there is a heavy discussion about, what can be seen as the most important vector of the development of Human Capital and of growth.

At the end, we can retain the arguments of Weber linking education to health. Further, we will also put the accent of our research on the premises of Li and Huang attesting that a healthier population is better off to produce performance so then growth.

At first, we will develop the arguments on education and find out how this education promotes a better employment and revenue. In turn, how this revenue will help to finance health and education. The effect of employment i.e. of household income on health and education and *vis versa* will be analyzed in chapter 5. Along chapter 6 on Health, we will also pay attention to the influences of education and of income.

These themes will be mostly our focal points for the development in the following chapters.

Chapter IV: Education for Human Capital Development

1 Policies and Strategies

1.1 Education in Benin

The structure of education in Benin was based on vocational or clerical system. Vocational means the traditional handicraft and the clerical is the naturopathy and divinities. Later on, the first colonial power, the Portuguese, need "translation personal" for their trades (mainly slaves) with Benin Kingdom from Abomey. For this purpose, they had trained some local people expressly. At the beginning, the Jesuits had taken over by educating a small number of children in European clerical activities in the aim to establish Christianity and slowly the slice into "classic education" as in Europe. This educational activity took place along the littoral and in small areas such as Ouidah and Grand-Popo (protectorates and trade harbours). At that time, the level allowed to male Beninese was very low: Arithmetic, Read and Writes and Speak equivalent to the 4th-5th level in Europe. Experience in Middle- and South America, then in Senegal down to Guinea with high educated indigenous were at the origin of this behaviour: the fear of anti-colonial struggles. At the same time, these low level educated people were convinced of the power and superiority of the colonial[212] people so then, they became the multiplicators, the transmission vector of "acceptance and fear" of colonial culture. Few centuries later, near the end of 19th century, Jules Ferry[213], a French prime minister of the III Republic, had forbidden the free and high education of colonized people. The situation changed at the beginning of the 20th century. People had understood the meaning and the importance of education. Colonial clerical had opened many schools, from basic elementary to high schools along the littoral and inside the territory. The

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[212] At the same time, by no mean, the colonial power had ever respected the local culture and civilisation.

[213] Jules François Camille Ferry (5 April 1832 C 17 March 1893) was a French statesman and republican. He was a promoter of laicism and colonial expansion. Regarded as the promoter of the, "free school, laicized and obligatory", it became decades after his death, an emblematic figure and a founding father of the French Republican identity. The education policies establishing French language as the language of the Republic have been hardly contested in the second half of the 20th century insofar as, if they played an important role in unifying the French nation-state and the Third Republic, they also nearly provoked the extinction of several regional languages. This was the case of Benin with its writing. With about 10 million citizens, less than 500 people could still master the writing.

wealthier families had enroled their *sons* in those institutions. After World War I, the colonial administration had followed the clergy in the creation of public schools at the same level as in Europe. The fees were lower than by the clergy so then; the local middle class could enrol their children, mostly male in the public schools. Until the Second World War and the decades after, except Senegal and Ivory Coast, education facilities in Benin were far better than in other parts of Africa such as in Sahel and Congo Basin region.

In the 40s Benin was called the "First Latin Quarter of Africa" because of its high rate of enrolment and accomplishment, the number and quality of its educational staff. Beninese found themselves serving as teacher in the colonies of West Africa (AOF). The Republic of Benin has always given prominence to education. Since that period, a lot of Beninese teachers were trained and a part of them had created their own private schools, mostly along the littoral but sometime in the rural areas. Somehow in Benin, there is still in each village a kind of informal as formal "primary school".

Nevertheless, school coverage of Benin was not perfect but respectably increased until the independence in August 1960. The grassroots struggles for independence, the fear of the colonial power were leaded and conducted by those with high level of education and those which had longer lived in France. After the independence, a large number of Beninese returns from France, Senegal and Ivory Coast universities. They were those which had understood the need of education for the development of national stock of Human Capital and had forced, under reform and priorities in development program, the creation of schools all over Benin.

In the 70th, under the regime of "Marxism-Leninism", the government of Kerekou has spoiled a whole generation by trying to oblige people to learn local languages in a cultural alienation context, accompanied with "intellectual hunting range" with other words by a decimation of the intellectual class. Before the 1975 reform, the administration of the education system in Benin was conducted by a single ministry, the Ministry of Education, Culture, Youth and Sports. Despite, educational reforms[214] begun in 1990 but real challenges remain. General Secondary Schools (CEG) and High Schools (Collège, Lycée)

[214] See The Development of Education in Benin, the National Report of Republic of Benin. Report prepared by the National Institute for Training and Research in Education (Ministry of Education), May 1995.

cover almost the cities of the country with supreme dominance in the departments located on the Atlantic Coast. They belong mostly to the state, but increasingly, private institutions are involved alongside the state structures. Only higher education provided for instance at the National University of Benin in Abomey-Calavi and the Institutes and Schools within the University, remain the monopoly of the State. The formal education system in the Republic of Benin has five (5) levels of education. These levels consist of Maternal Education (EM), Primary Education (EP), the General Secondary Education (ESG or CEG), the Technical Education and Vocational Training (TVET), Higher Education (ES).

With the era of Soglo, education had nearby recovered. The administration of education was centralised in Cotonou but liberalised for all Beninese. With the Millennium Goals, the government tried to secure the access to schools, equity and quality of education for all. At least, the primary schools were free. Consequently, the ratio of teachers-pupils was worsened; from a *"normal"* 30 pupils for 1 teacher, the ratio increased to 50-1 with a great depreciation of the school program and capacity was over used. In its effort to help the population and the implementation of poverty reduction strategies, Benin tries to make, according to its resources, services available for health, education, nutrition and infrastructure sector, etc. Two of main lines of this poverty reduction program were the broad based education and health to upgrade the stock of Human Capital for self-reliance, dignity, and the knowledge for a modern economy.

Since December 11th 1990, schooling is a Beninese citizen's right anchored in the Constitution, under the Articles 12, 13 and 14. The Constitution imposes an obligation on government to organize education and training of citizens in general and especially of the youth. This obligation is carried out by the Beninese education system, in formal as in non-formal system. This obligation is now spread over 4 government departments which share the field of education. These departments are:

- The Ministry of Primary and Secondary Education (MEPS);
- The Ministry of Technical Education and Vocational Training (TVET);
- The Ministry of Higher Education and Scientific Research (MESRS);
- The Ministry of Culture, Handicrafts and Tourism (MCAT).

The Ministry of National Education and Scientific Research was established by Decree No. 97-271 of 09 June 1997. Its mission is the design, implementation and monitoring of the general policy of the state in education, teaching, training and research in accordance with laws and regulations in force in Benin. The Department of Technical Education and Vocational Training (TVET), a feature of the team that runs the Department and its various divisions has the skills and the experience to perform the tasks assigned to this Ministry. FTP[215] Benin: The portal of the Technical and Vocational Training in Benin aims to meet the needs of trainers, providers, businesses, seeking training and all partners of development assistance. The Ministry of Culture, Handicrafts and Tourism (MCAT) is responsible for defining and implementing the state policy in the areas of Culture, Handicrafts and Tourism. Given these premises, Benin is still confronted to the difficulties of an adequate implementation which will target the poor and poorest of the population.

Furthermore, there are some collateral issues such as adult literacy and the early childhood[216] education, care, nutrition and development for the most disadvantaged children of the country. The later cannot be dissociated from the main line: Education for all and Human Capital Development. The point of concern is the cost of the program. Adult literacy is the present of the nation, acquiring the necessary knowledge, skills, capability for monitoring the modern global economy and technology. It is a matter of lowing/reducing the costs, of reaching a scale production, and efficiency according to the scarce available resources. The target now is: (i) how to make the educational program free, qualitative and obligatory up to the secondary and technical level (Collège d'Enseignement Général CEG); (ii) how to bridge the opposition rural/urban and other disparities such as cultural, regional, gender, etc. The higher levels of education are very costly and will be the concerns of future issues. The first attention focuses the standardisation of the whole system: from the improved curriculum and material, over the training of the teaching staff, down to the examination and ratio teacher-pupils. If from early childhood up to higher level of education Benin has some serious problems of implementation, the constellation changes deeply about adult literacy wherever it takes place. The first

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[215] Le Portail de la Formation Technique et Professionnelle: FTP.

[216] We must keep in mind that early childhood is the nation future, the basis of future development and welfare.

proposition of decision-makers was the double use of the infrastructure i.e. day time for pupils and at night for adult. A minimum fee affordable by even some poor households was proposed. This fee was and still the handicap to raise access and coverage of adult literacy[217], so then it was dropped. The main focus is now on the upgrade of vocational level added to the rudiment of literacy i.e. Read, Write, Calculate and the management of micro and small enterprises. This form of adult literacy attracts more people than the formal one.

Once again, the appearance that the poor and poorest, particularly children living in rural areas have a facilitate access to primary education is wrong. As we have seen in earlier chapters, Benin has not developed its infrastructure yet i.e. road, communication, estate and the administration also it has a disproportional allocation of staff and financial resources. Given these bottlenecks[218], the promotion of education in those rural areas lay on informal system rather than at primary, secondary technical and vocational formal level as on the littoral.

1.2 Policy and Strategy of Education

The education system in Benin under Kerekou was characterized by poor staff, financial, structural management and planning. Decentralization of the administration, management functions, and the devolution of decision-making authority to regional down to localities were major issues.

A genuine implementation program did not support this procedure. With the particular seven years' contribution of the US Aid (1998-2005), a program was designed with the Ministry of Education (MOE) to promote this line of the Millennium Goals: Education[219]. As we will see in this chapter, the challenge is on the weak capacity and capability of institutions, community decision-making and implementation process, and the disenfranchisement of the population, complementation for those young who didn't finish primary school, etc.

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[217] Paradoxally, the free adult education expended by the local NGOs, particularly those happened at night are more frequented in a ratio 85/15 by women as by men. If this attendance is maintained for long, it may be possible that more women as men become literate in Benin. (Own field research in Cotonou).

[218] These kinds of bottleneck hit particularly the departments of North such as Alibori, Atacora, and Donga more than Zou, Plateau, Oueme, Atlantique. Littoral is an exception.

[219] Most of the facts are extracted from MOE¨ Benin and Project of US-Aid. More informations under www.usaid.gov/bj/education/p-environ.html.

1.2.1 Institutional Capacity

The whole administration staff and procedure were concerned. A chronic lack of meaningful data on schools, pupils, and teachers was at the basis of many administrative problems. For the management of school data, the project requires the development of specialized computer applications for statistical education data analysis at the central, decentralized and deconcentrated levels; followed by the establishment of Fundamental Quality Level (FQL) essential norms under which a set of indicators[220] will work.

For the decentralization of the education system, a study was carried out on the impact of the decentralization on human and financial management resources. For this purpose, local elected officials were trained. As supports for the system, a national textbook policy, a directory of all existing laws and regulations that affect the primary school system was developed in 2005, as also strategy for better school management.

Benin as every country in SSA claims a chronic lack of financial resources, but none of them has a genuine accounting methods and a budgeting control system. Indeed, this project includes financial management methods and processes. It means the improvement of the budget control system with computer applications for budget control as an Education Account Statement at the central and decentralized levels of the Ministry of Education.

Both were set up and put into use. Such a tool shows the average spending on students, source of funds, disparities by region/community, and the evolution of spending since 1993. It was a "revolution" in the whole management of national education. Financial planning tools were designed and by the way, a financial management plan was developed based on a training program for financial managers. Later on, in this line, government design by 2006 so called Decennial Plan of Development in Education Sector in Benin (PDDSE Plan Decennal De Developpement Du Secteur De l'Education).

The PDDSE is a tool in the fight against ignorance, poverty and social inequality. Based on the principle of full participation, it must achieve the expected results by the actors. Its objectives were subjected to an audit that raised numerous dysfunctions impeding the smooth running of the national education

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[220] Indicators for the evaluation and calculation in allocation of resources, their uses to upgrade the structures of the schools and of quality output by the institutions.

system. To this end, five (5) major educational measures have been taken to overcome the problems:

1) free tuition classes in kindergarten and elementary school,

2) free tuition for girls up to grades 6th and 5th of general secondary education first cycle,

3) free tuition for university students' non-receiving allocations,

4) the conversion of community teachers and local contractors in contract agents of the state,

5) Amendments to the status, expenses and allocations for teachers in higher education.

Furthermore, it should be noted the necessities of ameliorations, particularly in terms of access to all levels of education, in term of quality improvement of educational provision and standards in schools, in term of retention and of reducing regional disparities and gender discrimination.

However, there are major weaknesses, such as: the quality of learning and learning outcomes related to the learning expended time, the allocation of teachers, teaching methods, class repetition at all levels and improving completion. In addition, the flow control and the provision of education in vocational training and in higher education are not in harmony or in line with the labour market demands and expectations.

A plan of seven sub-sectors programs for the national education system was developed to address all those problems. The seven levels are:

1) The Maternal/Nursery Education,

2) The Primary/Elementary Education,

3) The General Secondary Education,

4) The Technical Education and Vocational Training, Retraining and Youth Integration,

5) The Higher Education and Scientific Research,

6) Literacy and Promotion of National Languages,

7) The Management and Control System.

1.2.2 Community Decision-Making and Implementation Process

The sustainability of the free primary education program depends on an informed and active community within, education resources are well managed

and reach the intended recipients. The empowerment of local communities and civil societies, in particular parents of children in the management and financing of schools, will assist the government to devolve effective power to the local level in the aim to enhance the advocacy, management, and decision-making skills of local public and private entities. This aspect of the program aims to increase the involvement and the role of civil societies (i.e. the parents of children attending school) in the management and the development of the primary school system.

In this line, MOE and US-Aid had pull together with other organisations-programs and projects such as the "Primary Education NGO" (PENGOP[221]) and the "Civic Action in School Environment" (CASE[222]) projects. The project's objective is to increase the involvement of civil societies in the education sector in every region and to provide them with training in organizational management and development. This objective has paid off.

They had demonstrated good governance, sound and transparent financial management also a regular and transparent elections for officers. A significant part of the training involves hands-on projects. It is identified and managed by the associations themselves. Parents have greatly improved the school environment through these projects. For example, by the end of the 2000/2001 academic year, construction of more than 1,000 classrooms (i.e. from classrooms over materials, electrification, maintenance and repair down to school canteen kitchen, sanitation, water supply, emergency classrooms after floods destruction as in department of ZOU) all over the country has resulted. Due to several factors[223], enrolment and attendance rates are particularly low in northern rural areas.

Catholic Relief Services (CRS around the World) developed a community-run school canteen program that began in May 2000 with funding from

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221 PENGOP is a comprehensive country-wide program of strengthening school parents associations that ended in Sept. 2003. It strengthened 1,200 parents associations, representing approximately 25 % of primary school parents associations in the country, to make them effective partners of the administration in the governance of the primary school system.

222 It encouraged the organization of the population into non-governmental associations in order to create, "social capital." Members learned how to run meetings, speak in public, write letters, design projects, and discuss public issues.

223 Poverty: school feeding program that benefits the poor and poorest children in Benin. Cultural factors: Household and farm labour, care of younger siblings and the household duties, early marriage represent the major obstacles in girls' education. Long distances have negative impacts on attendance, encouraging students to leave school early and not return, as on attentiveness. Hungry children cannot concentrate on their lessons.

FFP/USAID. Currently, this program reaches 7,918 primary school students (4,815 boys and 3,103 girls) in 40 schools in the northern regions of Benin with yearly increasing tendency. The aim of this program is to increase access to education by rural students. The main challenge remains that, parents should be more interested and increase their involvement in school affairs through associations.

The gender aspect became another heavy challenge. Women's involvement in the school management remained very low. Given this context, USAID awarded a new grant to the "CASE" project. The objective is to improve mostly women involvement in school management by strengthening the legal environment, and promoting girls' education and gender equity. A total of 36 school mothers' associations were created and are operating well above expectations. The enthusiasm of mothers to have an organization in which they express and discuss their own ideas has been very high. Their impacts include the high attendance rates at meetings and the interest in following up and supporting the academic performance of their children. There have been many circumstances where associations intervene to recuperate and return to school, children, in particular girls, who have been subject to "domestic forced labour" systems or placed in local religious convents. Furthermore, the school mothers are in the process of developing small micro-projects for co-funding with World Education. Projects include the construction of classrooms, the purchase of cereals, and the purchase in bulk of school supplies.

In December 2005, the directory of all existing laws and regulations that affect the primary school system was completed and made available to parents, associations, commune elected officials, teachers, and local and national authorities. This was the first time that parents had direct access to the regulations and laws that pertain to their role as participants in the school system. In the frame of the project, it is very important to notice the contribution and support of the program implemented by Medical Care Development, Inc. The program, called Health Education in Primary School (HEPS), aims to promote preventive health care by *utilizing children as agents of change* because they are excellent candidates to promote health messages. The objectives of the project together with the Ministry of Education Fundamental Quality Level (FQL) Requirements were to:

- Increase primary school children's knowledge on hygiene, sanitation, nutrition, and the prevention of some prevalent diseases;
- Improve primary school children's sanitary (latrines, urinals) and hygiene practices (water points, and hand washing facilities);
- Strengthen the participation of parents' associations and school health committees in improving primary school children's sanitary and hygiene practices.

The control of the project brought that, for example, more than 94 % of the students in the primary schools covered by the HEPS program were observed using the latrines to defecate rather than going "in the bush." The same percentages are also true for use of the urinals instead of the school courtyard. Hand washing with soap and water after toilet use still needs improvement but not fewer than 64 % of the children were observed washing their hands.

Concerning the young[224] who didn't finish primary school, a viable option for these students is a technical and/or a vocational skills training school to raise their future standard of living. With the national scarce resources in particular in rural areas, the project focuses on the training of young farmers[225] and school drop-outs in integrated agro-biological techniques and entrepreneurship. In Benin for this issue, USAID cooperates with a local NGO and non-profit organisation founded in Porto Novo called: SONGHAI[226]. The USAID grant to Songhai is for the expansion of its activities to two new centres in Savalou and Parakou, for strengthening farmer outreach and networking activities, and for strengthening Songhai's capacity to manage the expanded activities in Benin. The two new centres were officially inaugurated in February 2000. Songhai constitutes a dynamic environment that promotes a sustainable human development and a culture of success, a model for young people. Trained primary school leavers work their field using improved agricultural tools and techniques that they self-produce on place. The same USAID was otherwise active

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[224] More than 60 % of children who enrol in primary school in Benin leave school before completing the sixth year.

[225] USAid in "Monitoring and Evaluation for the Africa Bureau Education Division: Country Context Report – Benin", 16th November 2016 at 2:25 PM under http://pdf.usaid.gov/pdf_docs/PNADG203.pdf

[226] The Songhai Center is committed to raising the standard of living of the population in Africa through the rational use of local resources. This mission is carried out through the training of young farmers and school dropouts in integrated agra-biological techniques and entrepreneurship.

in promoting association, schools and civic societies aiming to train young people in technical as in vocational education. By the implementation of these policies, the government particularly the MOE, the communities, the civic societies, and the recipients contribute, according to their capacity and capability, to the success and for the sustainability of the whole project. One could expect that this project will serve as a "success experience" for other Ministries and projects in Benin. Although this project concerns specially the public school, it will be extended to the private institutions.

1.2.3 Gross Enrolment Rates

As in the case of Benin just before the Millennium, repetition and dropouts are common. This will seriously change with the demographic dynamic. In such case, the gross rate gives only an imperfect idea, also overestimated (because the repeaters are taken into account twice) the effective coverage of the system. This coverage would be better represented by the net rate. Unfortunately, to use it as part of this work, precisely because of its definition and the principle of the calculation, could lead to major errors in education policy. In this overview of the Beninese education system there is the relatively low number of children enroled in urban preschool; in rural area, it doesn't make sense anymore! With 28,000 children in 1998-99, the rate is only about 4.4 % of children aged 3 to 5 years with a marginal increase in the following years if one considers the rapid demographic increase.

– At the level of primary education, the estimated gross enrolment rate increased from 71 % in 1992-93 to almost 82 % in 1998-99 and reached in 2011 a huge rate of 114.5 % – an overtime increase of 43.5 % points – or an average annual gain of about 1,97 points is fairly close to what can be observed in comparable countries in the region.

– At the general secondary education, the enrolment rate increase was greater in the first cycle where the gross enrolment rate increased from 15 over 26 % to 62.9 % for secondary I, the rate of the second cycle from 5.9 over 7.6 % to 32.6 % in 2011.

– In higher education, the number of students per 100,000 inhabitants raised from 207 in 1992-93 over 353 in 1998-99 to 1079 in 2011 a very substantial increase. All level increase every year slowly.

Table 2[227] is an illustration of the ratio of the whole enrolment up to higher education from 2001-2011.

Table 2: Gross Enrolment Rates by Broad Levels of Education

	2000-2001	2004-2005	2007-2008	2010-2011
GER Kindergarten	2.5 %	3.4 %	7.8	11.6 %
GER Primary	84.5 %	95.2 %	107.0 %	114.5 %
GER secondary I	30.7 %	43.6 %	56.6 %	62.9 %
GER secondary II	9.6 %	14.6 %	22.4 %	32.6 %
ETFP Pupils/100000hbts Pupils/100 pupils in all secondary	 326 9	 408 8	 410 6	 659 8
Students at College/ 100000hbts	474	667	738	1079

Source: Data composed by the author from the data of DPP in collaboration with the 4 different ministries, data of INSEA and some of Resen 2007.

The context of the education in 2011 shows that Benin has made a huge effort in the enrolment since 1992 over 1999-2000 down to 2011.

1.3 Demography, School-Age Population and Enrolment

1.3.1 Demographic Constraints and Economic Context

The volume of pupils and the quality of services are in the short, medium and long term, conditioned by public and private financial resources and population growth dynamics i.e. the annual growth of school age children.

The analysis of the macroeconomic framework allows the evaluation of the evolution of public resources allocated to the educational sector in the past and planning those likely to be in the future. The socio-demographic context allows the identification of the oncoming demand which must be meet by the educational system; and socio-economic factors that may constitute additional constraints to the efficient development of the education system.

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[227] See World Bank Country Statistic 2002. The population data used in this table differs slightly from those in the statistical yearbooks. They were re-estimated and re-smoothed to avoid or minimize too large differences of numbers between 2 consecutive years of age (the problem of attracting round age at the time of the census). Also Data composed by the author from the data of DPP in collaboration with the 4 different ministries, data of INSEA and some of Resen 2007.

1.3.2 Demographic Problems

Table 3 below shows the population data from 1992-2020. The total population of Benin increased from 5,100,000 in 1992 to 8,800,000 in 2010, an increase of 72.3 %. According to INSAE, Benin's population will reach 11.6 million in 2020 an increase of 31.7 % over the period of ten (10) years. This is explained by a decreasing population growth rate from 3.1 % in 2000 to 2.84 % in 2010 and will be around 2.74 % in 2020. A high rate associated to an average fertility of 4.9 children per woman in 2011 and a significant decline in both infant and child mortality. This rhythm of demographic slowdown will lead to long-term stabilization of various public sectors spending to education.

In 2010 the population of children and young people aged 3-18 years was estimated at 3.9 million children, or about 44.2 % of the total population of Benin, a school-age cohort seeking education structure. In 2010 nearly 1.6 million children were old enough to go to primary school. With an increase of about 25.8 % in 2020 they will be 2.03 million; with almost constant result in other age cohorts. This will put a huge pressure on the financial and management resources of primary schools.

Table 3: Evolution of the Population and the Age Structure in Benin, 1992-2020

	1992	**2015**	**2020**	**Evolution in % 1992-2010**	**Evolution in % 2010-2020**
Total Population ~ (Thousand)	5142	10177	11668	+72.4	+31.7
Population growth rate (annual %)		2.80	2.74		
% Rural Population	64.3				
% Female Population	51.4				
Total School-age cohort (3-18 years in thousand) enroled in		4429	4915	+23.2	+25.4
Pre-school (3-5 years)	633	1049	1123	+49.0	+19.1
Primary school (6-11 years)	993	1837	2034	+62.8	+25.8
Secondary First Cycle (12-15 y.)	468	959	1092	+80.2	+29.5
Secondary Second Cycle (16-18)		584	666	+24.4	+29.0
Enrolment % of Total Population	12.3	43.5	42.1		
Pre-school (3-5 years)	19.3	10.3	9.6		
Primary school (6-11 years)	9.1	18.0	17.4		
Secondary First Cycle (12-15 years)		9.4	9.4		
Secondary Second Cycle (16-18 y.)		5.7	5.7		

Source: ~ Population data were adjusted, data of 2011. INSAE, EMICoV 2006, 2010 and 2011 data from the 1992 CSR Benin 2008 in PDDS Actualisée, Phase 3; Ministères en Charge de l'Éducation, Cotonou Février 2013, p. 18.

2 Education Structure in Benin[228]

2.1 Education in Benin: Overview

The administration of schools in Benin belongs to the owner i.e. public, private, religious, NGOs and other institutions. The so-called *"laic schools"* belong to the State and are the so-called "PUBLIC OFFICIAL" and the rest of the schools, even belonging to the city or a village, are the non-official. Some similarities appear in Benin system with the rest of SSA, because this system seems to be a particularity of French system extended to the British countries. The system includes the stochastic years from mid-september until the end of June/mid-July with the same holidays and same real amount of hours spend in teaching and learning. With the decentralisation, no discussion was on the improved basic curriculum and material for each level, the training of the teaching staff, the examination and ratio teacher-pupils. These targets are given from MOE. The process to reach at least the assigned results by the MOE is decentralised. Sometimes, examination in one department can be harder than in other departments of Benin. The level begins with the early childhood education and pre-school up to university. The time to complete each level of "graduation" is given. In Benin, we have following levels[229] for all:

Children Garden and Primary

"The Maternal/Nursery Education" is new in the system of schooling but aims at developing quality, standards and facilitating access to preschool education. Also, it aims at creating public estate, reinforcing the cooperation with private organizations and initiatives.

"The Primary/Elementary Education" as in the example of the nursery here, the goal is to improve the quality, the standards, social equity and gender, as also the increase in the access and retention in general and in particular for girls. Efforts should be made toward children with disabilities, not to forget the improvement of the management of the institutions.

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[228] See the list of the existing Public institutions i.e. from Ministry of Education (MOE), primary schools up to tertiary education (Universities), over Technical and Vocational Centres and Schools according to the Departments and locations.

[229] In Benin, there is a deadline for completion within a legislative Framework. This is the time given by the MOE to complete each level of "graduation". See MOE Annual Publication 2005.

Secondary I (CEG) and High School (Secondary II)

"The General Secondary Education" in addition improves the management of human and material resources, the objectives are overall developing quality, standards, social equity and gender, also to increase the access and retention in general secondary First Cycle/Level I and especially of girls. Added to these measures is the increase from 6 to 10 years for basic education. In general, secondary Second Cycle/Level II, students are prepared for High Education.

Technical and Vocational School

"The Technical Education and Vocational Training, Retraining and Youth Integration" have a direct impact on the lives of students; TVET is obligated to increase its access's and training capacity in line with the demands of the labour market. We must add the objectives of improving quality, standards, social equity and gender, the external efficiency as management of this subsector.

College, Technical and University

"The Higher Education and Scientific Research" will adapt its offerings to the development of Benin. Through scientific and technological research, Benin provides the tools for sustainable development. It remains that the objectives are still the same as above: developing quality, standards, social equity and gender, as the increase in the access in general and in particular for girls, and the improvement of the management and control system. Informal Training, most in handcraft is slowly supervised by the specialized guilds.

Adult Education and Promotion of National Languages

Aim to ensure equitable access to the 15 years old and over to literacy and education, while promoting and enhancing national languages and improving the management and control of sub-sector.

2.1.1 Children Garden and Primary School

At the beginning, this education is not considered as an integrated part of the basic education rather a household privacy; so then government avoids every implication in this system of preschool which can afford resource allocations. It is a wrong approach that already leads to inequity between children. Until 2004, with the establishment of the Directorate of Nursery Education, government has always kept its engagements away from this education. The children

gardens are most expensive and private. Private initiatives such as the NGO "Aide et Action" and CAEB, the proposed cooperation BENIN-UNICEF have revived the Preschool Education. Efforts remain insufficient to address the disparities between urban and rural, North and South centres.

Kindergarten or preschool is a level where the mental, physical and psychological functions are developed. It is open to children at least 2.5 years old for a period of 2 years. In these schools, children learn by real mean in French: alphabetization (alphabet and syllables), the first decimal (addition, multiplication, and subtraction), singing and painting for the first year. In the second year, they learn writing by playing. Those children who have the opportunity to be enroled in such pre-education unit are also those most advantaged by the entry of primary level. Some children have the opportunity to learn a part of the first class of primary school by waiting at maternal level for their entry in primary school. Added to this, there are problems of management and education for children from 4,5 years that make their entries into the primary/elementary education next to children of 6 years old. The Primary/Elementary[230] school (EP), as it currently operates in Benin, is a little legacy of colonialism.

Unlike the so called LEC (read – write – count), a kind of repeating education of the colonial era, the new teaching method allows the acquisition of knowledge and skills base for future learning through a physical, intellectual, civic and morality training. It promotes productive labour as a factor of development of intelligence and integration in the economic environment. It is a new consistent approach of basic education. The orientation law states that primary education will be provided in French, English and national majority languages in the locality where the school is established. But the financial reality is that teaching is exclusively in French.

The primary level is 6 years long from Instruction Level (CI) followed by Preparatory Level (CP), Elementary I (CE1), Elementary II (CE2), Average Level I (CM1) to Average Level 2 (CM2). After 6 years, at the end of CM2, students must take the National Exam called Elementary Primary Study Certificate (Certificat d'Etude Primaire Elémentaire CEPE). Successful pupils can be enroled in Secondary I (Collège d'Enseignement Général CEG) or in Technical

[230] This education covers six years of study (CI, CP, CE1, CE2, CM1, CM2).

Schools (Collège Technique). Independently on the marks got by the National Exam, the enrolment depends more on the ability of the parents to pay respectively the 4 or 3 years of education. In the public schools, the classes are overcrowded with some 50 students. Since the beginning of the school year in October 2004-2005, the new curriculum is introduced in six primary classes and students have passed the "New CPE" in June 2005. Nonetheless, the privatization of EP is very strong in urban areas.

2.1.2 Secondary, Technical and Vocational[231]

Secondary education in Benin is organized into two cycles/levels. The first cycle of four years leads to the Brevet of Undergraduate Studies (BEPC). The second cycle has three years and leads to the baccalaureate[232]. The structure of secondary education in Benin is as follows. The management of secondary education is in Porto-Novo (the administrative capital of Benin) and under the Minister of National Education and Scientific Research. It includes the service programs, evaluation and organization of school services, personnel management, and inspection of education, the department of school organization and research. The management of school education is relayed in the departments by the departmental directorates of education and in the sub-prefectures by school districts. At this level, the scholarships granted by the government for the poor and poorest are suffering from and ill of politicization as in the case of Health. A politicization that affects the children, because they cannot hatch their abilities and potential in appropriate conditions and are, therefore, subject to accept "tacit and unaccountable" conditions. Furthermore, access to a state scholarship is an opportunity for insiders and wealthy families. Already, this imbalance of opportunity afflicts poor children.

General Secondary Education First Cycle (ESG[233])

For those who have completed their primary education, entry into 6th grade/form is subject to exams, whose results are based on scores reached in

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231 All information about the levels is in Education in Benin according to the Departments and under Ministry of Secondary Education and of Technique and Vocational, and Secondary I.

232 Similar to high school diploma.

233 First Cycle/Junior High covers grades 6, 5th, 3rd 4èmeet) and the second cycle classes 2nd, 1st and final year.

four main topics[234] of the CEPE. It aims to deepen the students' sense of observation, logical reasoning and research skills. Those who are enroled in Secondary I have 4 years from the 6th over the 5th, the 4th up to the 3rd Form.

This system is the general or classic one with the focus either on languages (French, English, German, Spanish, and Russian) or on sciences (Mathematics, Physic, Chemistry, and Biology).

At the end of the 3rd Form, however, students must take a National Exam called Diploma of Secondary Level I (Brevet d'Étude du Premier Cycle BEPC). It is the entry ticket for the High School or Lyceum rather called second cycle or secondary level II.

Those in Technical[235] Schools have 3 years of attendance. At the end of the third year, they must take an exam called Primary Ability Certificate (Certificat d'Aptitude Primaire CAP). At this particular level, government is trying to wide this CAP to the informal education (at least for 4,5 years) in recognition of the difficulties and poor conditions experienced by children during their training in informal sector. Therefore, government designs a kind of standard for the exam by the Chamber of Trade and Crafts. Regretful; the successful students of this exam are not allowed to step into a Vocational or Technical High Schools, a further dual system of education, because the available structure is not yet enough developed to welcome them.

Both Technical and Secondary I students can continue on Technical High School or the Secondary I go to Lyceum. Both have 3 years' attendance ahead.

Technical Education and Vocational Training (TVET)

The Technical Education and Vocational Training prepare to employment and allow the continuation of technical and vocational higher education. Since the General States of Education (États Généraux de l'Éducation) in 1990, this education was declared second priority of the Government after primary education. The TVET consists of six areas of learning:

- Hotel and Catering (HR)
- The Health Sciences (SS)
- The science and engineering (STI)

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[234] French, Arithmetic and natural sciences and sport.

[235] Under Technical, we should understand the mechanical, metals, electricity crafts, accounting, chemistry, etc. for modern manufacturing, construction and agricultural sector at some 60-75 % practical and 40-25 % theory.

- The Family and Social Economy (EFS)
- The Agricultural Sciences and Technology (STA)
- Scientific and Administrative Technology and Management (STAG).

At the example of STI in 2 courses of 3 years each respectively and closed by (CAP) Certificate of Professional Aptitude and then a (DTI) Diploma of Industrial Technician, all other courses have each a rigorous curriculum. Since 2010, nursing and midwife courses take place at the level of higher education, because they are subject to obtaining the Baccalaureate. Following the reform of the training of health officers, the training in health sciences have taken place since 2009 as follows:

- Entry school of training is based on a contest after obtaining the BEPC;
- Two years of training to obtain the Nursery Assistant degree;
- Three years of training for Social Assistant Diploma category B.

2.1.3 High Schools

At the second cycle there are educational options. Options, that prepare for a baccalaureate in literary, science or technique. However, the choice of this or that educational option is not done according to established rules i.e. numerus clausus as in Germany or France. This liberty, transposed into higher education, carries out serious consequences in terms of loss of time, of energy, and especially of productive resources, both for students and for the country.

To the High schools or Secondary Level II belong 3 years' attendances. At the end of the third year, the classic education leads to the Baccalaureate or High School Diploma in following specialties: **A** for the languages, **B** for economy and administration, **C** for mathematics, physic and chemistry, **D** for sciences (mathematics, physic, chemistry and biology).

An intermediate High School Diploma is that of the **A**ccounting, **E**lectronic/Electricity, **C**hemistry, **S**ecretariat and **A**dministration.

Technical High School Diploma is not to put together with the baccalaureate. Therefore, it is called a Brevet of Professional Study (Brevet d'Etude Professionnelle **BEP**) or Diploma of Industrial Technician (Diplome de Technicien

Industriel **DTI**). It is also not a lowering of quality but a specification[236]. They sometime overlap that of intermediate Diploma. The fields covered by this curriculum are: management, machine technology, banking and finance, sciences, accounting, electronic/electricity, chemistry, secretariat, trade, hostelry and administration.

2.1.4 Organization of higher[237] Education (ES): Technical and University

First of all, any candidate must take his/her Baccalaureate with success to enter the university or other superior educations. The University of Benin from its inception by the Decree of August 21, 1970 70-217/CP/MEN set itself the goal of *training enough qualified managers* to maintain and manage the social, economic and cultural affairs. It also targets a research institution at the service of development. The University just completed its quarter century of existence in the midst of serious social, political and economic issues in Benin.

By the Decree No. 2001-365 of 18 September 2001, are created the Universities of Parakou (UP) in the northern part of the country and Abomey-Calavi (UAC) in the department of Atlantic replacing Decree No. 70-217/CP/MEN of 21 August 1970 establishing the University of Dahomey. Université des Sciences Appliquées et Management (USAM) is a university located in Porto-Novo and founded in 2003. Now it is followed by 8 private universities

The two first national universities are the heirs of the University of Dahomey, which had itself taken over from the Institute of Higher Education of Benin (Institut d'Enseignement Supérieur du Bénin IESB), established in 1965 for Benin (then called Dahomey) and Togo in continuation of the implementation of the first forming structure of Higher Education of Benin: Science Foundation course installed in 1962 in Porto Novo. Since then, these two universities are the two oldest public institutions followed by that at Porto-novo of higher education and research in Benin under the supervision of the Ministry of Higher Education and Scientific Research. The missions of this ministry are attached to staff training and participation in the development of scientific re-

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[236] All further information about Benin educational system can be obtained from the MOE. The information and the facts in: Education and Human Capital Development are from the MOE, official news of the MOE, and from its Annual Publications from 1999-2009.

[237] See MOE, French Ministry of Cooperation and the Ministry of National Education. See also http://www.diplomatie.gouv.fr/fr/article_imprim.php3?id_article=73102.

search. Various official documents provide the legal framework of higher education and universities in Benin:

- Law No. 2003-17 of 11 November 2003 sets the general framework. This law concerns the orientation of national education in the Republic of Benin and specifically addresses the third level education in its Title V
- Decree No. 2007-442 of 2th October 2007
- Decree No. 2004-275 of 12th May 2004
- Decree No. 2001-365 of 18th September 2001
- Order No. 1991-92 of February 13th, 1991 on organization and operation of the universities.

Since 1970, the university incorporates the national elements of the Higher Institute of Benin established in 1962. It took its current name in 1975. It ensures the production, transmission and dissemination of knowledge, know-how and expertise required to master the human environment, to improve living conditions and to contribute to the sustainable development of the country.

It ensures the development and adequate training of competent and competitive executives, able to ensure their own development and future of the nation. It prepares to different national diplomas of higher education in the curricula of two to eight years (2-8 years). The change in length/years of training depends on the areas/pathway and sectors. The main system is the Bachelor-Master-Doctorate (LMD) system in Benin. In their structures, the higher education can seem to be a little bit complex for the outsiders but it is not. Technical Level leads to 2 different cursus: Engineering School (Ecole des Ingénieurs) for 4,5 years or University Institute of Technology (Institut Universitaire de Technologie **IUT**) for 2 years. An intermediate Diploma, also for 2 years, is available as a continuation after every high school diploma at Superior Professional School (Ecole Supérieure Professionnelle **ESP**). At the **ESP**, the curriculum of the High School is deepened, near the profession. The aim is to supply skilled manpower to the middle management of the profession. It is a comprehensive study of the **BEP.** Therefore, its denomination is a Diploma of Superior Technology (Brevet de Technicien Supérieur **BTS**). The fields of this diploma are covering more activities than the fields of BEP, because it is covering the middle management level of medium size industry, administration and trade.

At the **IUT,** it is purely a curriculum of high technology. The difference with an ESP is done over the previews education. The first enroled at the IUT are those from a good classic High School Diploma in **C**, **D**, as the intermediate **A**, **E**, **Ch**. Given these requisites, it is very hard for any earner of BEP from a Technological High School to pretend to an IUT. Exception makes the rule. The fields by the IUT are covering the same range as by the ESP. However, there is some clear differences in their curriculum.

Those at the IUT are more autonomously studying with nearby 50 to 100 students and more, whereas those at the ESP are regularly controlled and the classes have no more students than a high school class, about 20-30 students. Searching for a job, the owner of the Technological University Diploma (Diplôme Universitaire de Technology **DUT**) can look at every middle level from the lower up to middle management of big size industry, trade and administration.

At the Engineering School, the top class of technology, the curriculum lay on the French model. It means a 2 years' preparation closed by 2 exams: one for the preparation and one for the entry at this school. Only the first best needed are accepted. The fields are very wide but less than in France and covering the existing and "no-existing" (future demand of manpower) field of technology in Benin. Now in 2010, three universities[238] are in Benin: Abomey-Calavi, Porto-Novo and Parakou. These universities have a public, scientific, technical and cultural (EPSTC) status and a legal personality and financial autonomy (Article 1 of Decree No. 92-1991). The decree of 19 October 2001 lists the different entities depending on the university. Besides the traditional faculties:

- Letters, Arts and Humanities (FLASH)
- Law and Political Science (FADESP)
- Economics and Management (FASEG)
- Science and Technology (F.A.S.T.).

There are also training institutions, including the National School of Administration and Magistracy (ENAM), a Faculty of Agricultural Sciences, a Polytechnic School (EPAC), a Faculty of Health Sciences, and a Benin Center for Foreign Languages and INJEPS.

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[238] In the Education in Benin, the list of the universities, Grandes Écoles (not confuse with High School), Institutes, etc; the whole tertiary education is under: Ministry of Higher Education and Scientific Research.

The University of Benin in Abomey-Calavi (UAC) has following 8 faculties in 2010: Agricultural sciences and hydraulics, Economics and Management, Health Sciences, Humanities, languages and arts, Legal Science, Science and technology, Science education and training subdivided into different colleges:

Faculty of Health Sciences

The Faculty of Health Sciences, University of Abomey (UAC) is derived from the transformation per Decree No. 353/METS/UNB of December 22nd, 1977 the first medical training institution, the Department of Medical Studies and Para-Medical (Département des Etudes Médicales et Para-Médicales DEMP), established in October 1971. It is led by a team dean elected to the faculty, consisting of a Dean assisted by three vice-deans. Each dean team has a mandate of 3 years. There are following high institutes attached to the UAC:

ESA Superior School of Agriculture

The Higher School of Agronomy begun with the academic year 1972-1973 with a short cycle of three years, to train agricultural engineers, middle managers between agricultural engineers of conception abroad trained and agricultural technical assistants (equivalent to agricultural graduates) two years earlier formed at the National School of Agriculture in Tove.

In total, nine promotions have been formed in this short term. Before the beginning of the academic year 1981-1982, the long curses of five years were established to train agricultural engineers of conception.

ENSI National School of Engineers

ENSI is a result of the restructuring of the former School of Industrial Mechanics (MISP), created in 1972 to form within three years, engineering technologists in the specialties of Civil Engineering and Mechanics Engineering. But the programs and duration of training were a problem of equivalence of diplomas awarded to those existing in the francophone countries of the sub-region.

The authorities then decided to restructure the institution and thus were created the National School of Engineers (Ecole Nationale Supérieure d'Ingénieurs) ENSI, established by Ministerial Decree No. 50/MENRS 19 July 1985.

ESTBA School of Biological and Food Technology

The School of Biological and Food Technology (ESTBA) is a technical training institution at the University of Benin. E.S.T.B.A. arose from the restructuring of the University Institute of Technology, Health and Biological Sciences, founded in 1971 by Presidential Decree No. 70-157 of 14 September 1970. E.S.T.B.A. aims at the promotion and development of technology in teaching and research. This is a public scientific, cultural and professional institution.

ASM School of Medical Assistants

Created by presidential decree of September 18, 1972, the School of Medical Assistants has long been established primarily for nurses, midwives and health assistant's graduates of state. This education will prepare to have a good experience, a real technical skill, a good level of general knowledge, skill improvement and a sense of responsibility, so then to better prepare them for technical, administrative, educational, information, communication and research in health. Today the entrance is also open to high school graduates of Series C and D.

ESSD School of Executive Secretary

The School of Executive Secretarial (ESSD) was established by Ministerial Decree No. 8/025/METFP 19th August 1986. It began its lessons in December 1986 and ran until 1992 with financial support from the United Nations Development Program (Project PNUD/TOG/86/011. The International Labour Office (ILO) serves as execution agent. IUTG[239] University Institute of Technology and Management (IUT Management) was established by Ministerial Decree No. 2 of 86/016/METFP June 1986, after extensive consultations with economic operators of private and public sectors and study the needs of the labor market.

INSE National Institute of Education and Sciences

The National Institute of Education Sciences (INSEE) was established by Presidential Decree No. 72 -185 5 September 1972, two years after the founding of the University of Benin. This creation is part of the reform of higher education

[239] See „Le Journal Officiel de la République du Bénin (The Official Gazette of the Republic of Benin)" published on the 1st and 15th of each month.

establishment in October 1972 and designed to adapt to economic realities and requirements of the country.

The design covers also the training in operational frameworks for the national economy. The mission of the National Institute of Educational Sciences was then to proceed jointly with the School of Sciences and the School of Letters to the training of teachers of a 2nd cycle of secondary and technical education, and inspectors of primary education. Without prejudice to its line, the National Institute of Education and Sciences has had, over the years, a diversification of its objectives to better meet the needs of society and to adapt to new conditions. Today, it provides a teaching of the second cycle/secondary level II of education and science, five specific training and spends much of its research activities on them. Its field of operations has expanded with the opening for the academic year 1995-1996, a complete cycle of psychology leading to mastery in this discipline for instance was offered.

CAFMICRO Central Africa Training Equipment Maintenance of Micro-Computers

Created as a joint initiative of Benin, Burkina Faso, Gabon, and Togo, with financial support from the French Ministry of Cooperation, the Inter-governmental Informatics Program (IIP/UNESCO) and the ACCT, and intellectual support for the Computer Club in Education and Research in Africa (cinerea), the CAFMICRO is a regional center for training in maintenance of the micro-computer. Placed under the tutelage of the "Committee of Rectors' Participating Universities", who entrust the management host to the University (in this case to the University of Benin), the CAFMICRO is a regional center in terms of its management, its recruitment and its pedagogical structure. For instance, Agricultural Sciences have 5 departments, each with graduation. The faculty of Science and Technology includes the Polytechnic School of Abomey-Calavi, EPAC. Under the EPAC, 2 sectors of education are supplied: industrial and biological.

Once again, each sector is subdivided into 5 departments for industry and 1 for biology. The private university has also a wide range of departments, each with graduation. They are following:

Agronomy Department: Agricultural Business and Management, Social anthropology and Extension Council, Crop Production, Storage – Storage and

Packaging of Agricultural Products, Animal Production, Economics and Agro-Business;

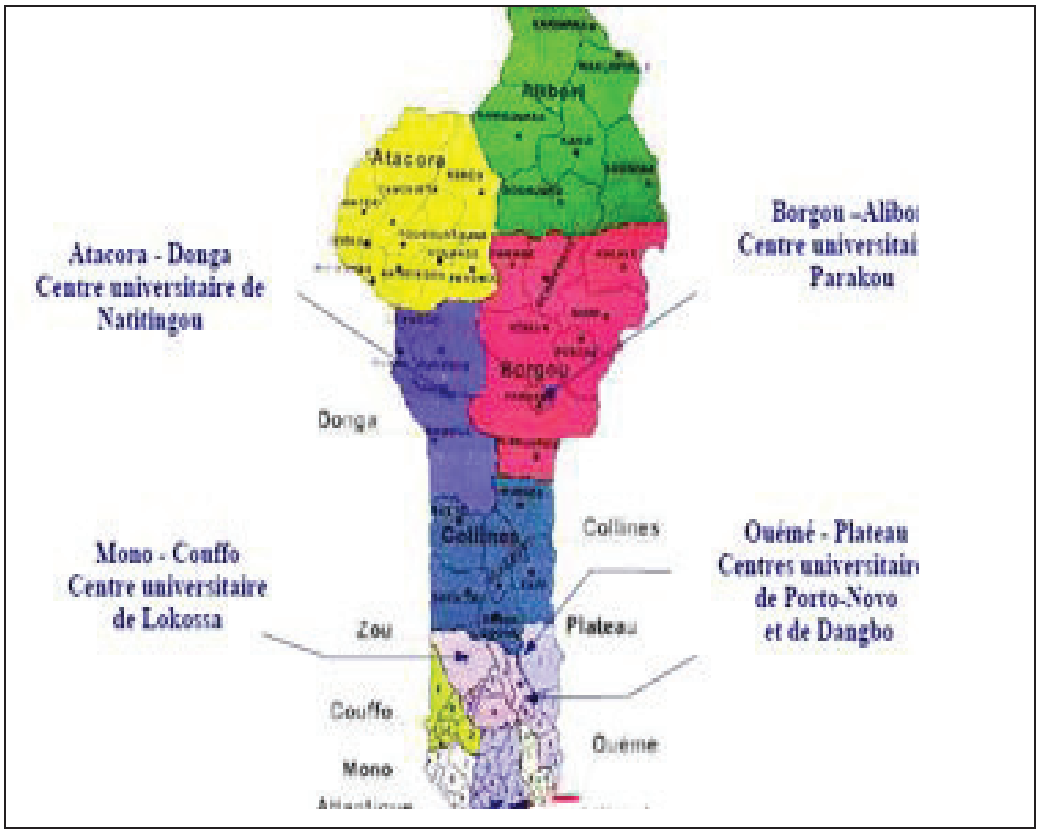
Department of Environment and Development (LAC Scientific): Urban Planning and Waste Management, Ecology and Public Space, Acoustic Nuisance, Rural Development and Agricultural;

Department of Technology: Electronics, Electrical, Computer Networks, Medical Imaging, Telecommunication, Energy, Automation and Production System, Industrial Computing, Computer Maintenance, Robotics;

Department of Management and Business: Insurance, International Trade, Banking and Finance, Communication and Advertising, Accounting Auditing and Control Management, Transportation and Habitat, Data Management, Human Resources Management, Marketing and Business.

The actual whole map of the high education and its geographic localization in Benin[240] is as followed:

Map 2: High Education and its geographic Localization in Benin



Source: Geographical location in MINISTERE DES AFFAIRES ETRANGERES, AMBASSADE DE FRANCE AU BÉNIN, Fiche Bénin, Organisation de l´enseignement supérieur, 8th September 2016 at 4:00 PM under http://www.diplomatie.gouv.fr/fr/IMG/pdf/Benin_Curie_14-06-12_cle0a7f1c.pdf.

[240] See the national university map of training institutions and research in Benin.

2.1.5 Providers of Education

Institutional Apprenticeship

Long before the government, NGOs and for-profit institutions have taken over to respond to the changes in demand for skills in the growing informal sector (IS).

This segment of providers is daily increasing in Benin, and a large number of them are still unregistered because they are small in scale, and part of the IS itself. Fees constitute the main sources of income for these institutions. Nevertheless, they follow official curricula and prepare students for state exams like their existing public counterparts. They are all concentrated in urban areas but a rare part operates in rural areas. They have also the interesting particularity to be very flexible for emerging demand on labour market. Their curricula (demand led) fit the requirement and needs of the IS in their time schedules, equipment, infrastructure, etc. Quality is still not for all a guaranty and the fees are somehow still a problem by the poor and poorest. In this context, the NGOs are powerful in their output than the for-profit institutions.

Traditional Apprenticeship

Similar to the institutions in Benin, a wide range of studies have been done in SSA about the so-called traditional[241] apprenticeship. Traditional apprenticeships are the most important source of skills training in Africa for the IS.

In this sector[242], they consist of private contractual arrangements[243] between a parent or apprentice and a master who agrees to provide practical training at the workplace, ranging from several months to three or four years in duration. He (the master craft) certifies the training in return for a fee or reduced earn-

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[241] See Haan 2006, Debrah, 2007, World Bank 2008, ILO 2008, C J. Nordman & L Pasquier-Doumer 2012.

[242] Arvil V. **Adams** in "Skills Development in the Informal Sector of Sub-Saharan Africa", World Bank August 8 ,2008, 15th November 2016, at 1:30 PM underhttp://docplayer.net/12827400-Skills-development-in-the-informal-sector-of-sub-saharan-africa.html

[243] Arvil V. **Adams**, Sara **Johansson de Silva**, and Setareh **Razmara** in "Improving Skills Development in the Informal Sector: Strategies for Sub-Saharan Africa", DIRECTIONS IN DEVELOPMENT, Human Development, 2013 World Bank, Washington, DC, 15th November 2016, at 8:40 PM, under http://docslide.us/documents/wcmstest4-067645.html

ings while learning. Certification is now passed by a state exam[244] in Benin. Traditional apprenticeships suffer from the weak education of the actors. Those entering apprenticeships come in the context where pedagogy varies and few market standards of quality are available. Master[245] craft himself doesn't have the education to develop his own skill, so then, does not provide theoretical knowledge alongside practical experience, and more often than not, teach outdated technologies. Furthermore, the ability to leverage large numbers of apprentices is constrained by the number of available skilled persons with the dimension of the infrastructure.

As quoted by A. V. Adams, "most trades offered by public and private training institutions can also be mastered through a traditional apprenticeship in segments such as IT, Marketing, Basic Logistic and Transport. The flexibility of apprenticeships in combining work and learning, their affordability and self-financing, their connection with future employment, and their generally lower entry standards make them attractive as a source of skills to disadvantaged youth. Nevertheless, improving traditional apprenticeships can contribute in a positive way to employment and poverty reduction."

On the other hand, the adequate assumption of Ziderman said that: "performance-based budgeting for public institutions could provide incentives to upgrade technical skills for master craft persons and improve the pedagogy they use. More attention and accountability could be given to institutions that provide complementary theoretical training needed to accompany the practical apprenticeships in partnership with traditional apprenticeships for updating the low levels of basic education that handicap training of apprentices and master craft persons"[246].

For some two decades, the reality of the IS has been recognized by decision-makers and development strategists, because they are still confronted with the pure fact that the IS definitively is an instrument for employment and poverty reduction. However, Benin government must take the challenge to improve standards and condition in the whole sector, a beginning could be education

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244 At the Chamber of Trade and Craft.

245 See "Skills Development in the Informal Sector of Sub-Saharan Africa", Draft by Arvil Van Adams, World Bank, June 4, 2008.

246 Ibid. and Ziderman 2003.

and training. Government must pay attention to the policy that promotes the growth of small businesses and improvements in household welfare.

2.1.6 Adult Education

Adult education in Benin is steady increasing in form of crash program or continuing education and skill development in agriculture, industry, environment, health, business, quality training in vocational activities, etc. Training also covers issues relating to socio-economic activities, culture, health, hygiene, citizenship, environment, etc. The duration of the courses depends on the curriculum and on the module from 2 weeks (about 20 time hours) to 9 months. It takes six months on average. Intensive functional literacy pedagogy is chosen. It is open to anyone wishing to learn the **LEC** i.e. Read – Write – Count. Most of the provisions happen through evening program and the rest at day time. The evening program uses the locality i.e. the infrastructure and estate, the classes of daily students and the available materiel. Some courses take place in week-end added or not to the courses on evening.

The courses lay on a dual system, because the students don't need to leave their jobs whereas they are upgrading their skills and knowledge. Indeed, this kind of education is wide and mostly limited to big city like Cotonou, Porto-Novo, Parakou.

In 2010, Benin has around 2220[247] public literacy centers added to private centers of NGOs and voluntary. The supplied services are far lower in other cities and urban areas. A minimum fee as contribution has to be paid by each adult. Some courses by some NGOs are free of fee. This model of training has the aim to alleviate poverty, to provide income generating activities and to upgrade skill and knowledge for self-reliance and dignity.

In the rural areas, this structure is very rare, except the services provided by the NGOs. Due to decade long misallocation of resources and planning, the rural areas are still not served by the government. Either than the NGOs, the promotion of education in those areas lay on the improvement of the existing informal system. Most children training as for some adult are done by the IS. This sector covers from old traditional handcraft activities to the modern one such as maintenance and repair of mobile phone, computer, radio and television. Since

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[247] Field research at the MOE, Cotonou Spring 2011.

primary school is free of fee, children attending this education can also read, write and calculate. Benin needs a better structure and curriculum, because the adult education is not demand driven by the economy but a private orientation, a lack of interaction between development process and response to technological requirements.

2.1.7 Gender Specification

Since the colonial time until the year 1968, it was very rare in Benin to find a primary school where boys and girls were together enroled in the same class. The schools, even the public ones, were differentiated into boys' school and girls' school.

It is also obvious that there were more boys' schools than girls' schools. This has changed at the end of 60th and from that time, the schools are mixed. Nevertheless, the gender gap i.e. in terms of absolute difference between male and female student enrolment rates[248] is still, country wide, roughly at 1 to 10. This low result already at primary level decreases progressively at the secondary, lyceum and in tertiary education to less than 1 girl to 10 boys.

Paradoxically, the mark get by a large number of female students at the exams are mostly better than those of the male students. Generally, girls are doing better than their male homolog because the girls know the social and cultural pressures under which they are studying. Since the meaning of education levels[249] and the gain out of it were cleared, gender discrimination in education becomes a dangerous politic, a handicap for the national wealth. The internal intensive work of some parents' association is trying to bridge this gap and to promote gender equity within the family. With this effort, girls' enrolments[250] tend to go upwards. Gross enrolment rates for girls increase near by 100 %[251], particularly in the cities. These averages, however, hide sharp differences among regions within the same country.

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248 See MOE Annual Publication and Reports from 1999 to 2010.

249 See http://web.worldbank.org/wbsite/external/topics/exteducation/0,contentMDK:20161496~menuPK:540092~pagePK:148956~piPK:216618~theSitePK:282386,00.html.

250 See http://web.worldbank.org/wbsite/external/topics/exteducation/0,contentMDK:20298916~menuPK:617572~pagePK:148956~piPK:216618~theSitePK:282386, 00.html#why.

251 See World Bank, EdStats, 2008.

Gender[252] differential access to school, their enrolment in primary, secondary and tertiary education is usually handicapped by poverty, adverse selection in cultural practices, schooling quality, distance to schools, HIV/AIDS, orphan hood, conflicts, emergencies and other fragile situations, gender-based violence, and information technology, gender gap, etc. The list is very long. Gender disparities still remain in both primary enrolment and school completion rates. The completion rate for girls in low-income countries rose in average by 9-13 % points, from 57 % in 1999 to 70 % in 2006, whereas the primary school completion rates for boys increased only from 63 % to 70 % during the same period in low-income countries[253].

In order to achieve gender equality by 2020 in Benin, more attention will need to be focused on access to include provision, retention, quality, learning outcomes and relevance of education at all education levels for all. Strategic directions for accelerating gender equality in education also include the study of their impacts and effectiveness. There are several compelling benefits[254] associated with girls' education, which include the reduction of child and maternal mortality, improvement of whole family nutrition and health.

Further, there is also a lower fertility rates, enhancement of women's domestic role and their political participation, improvement of the economic productivity and growth, and protection of girls from HIV/AIDS, abuse and exploitation. Investment in girls' education has one of the highest returns of all development investments by empowering private and social benefits that accrue to individuals, families, and society at large. Girls' education and the promotion of gender equality in education are vital to development. However, policies and actions that do not address gender disparities miss critical development opportunities. Let us consider few of these benefits:

– Educated women[255] use reliable family planning methods, delay marriage and childbearing i.e. fewer, better-spaced pregnancies, and have fewer and healthier babies. Their infants and children have higher survival rates and tend

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252 The People´s Story in "Why is girls' education important?", Saturday, May 23, 2009, 16th November 2016 at 2:45 PM under http://sakuntalarai.blogspot.de/

253 See World Bank, EdStats, 2008.

254 See http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTEDUCATION/0,contentMDK:20298916~menuPK:617572~pagePK:148956~piPK:216618~theSitePK:282386,00.html#why.

255 The People´s Story in "Why is girls' education important?", Saturday, May 23, 2009, 16th November 2016 at 2:45 PM under http://sakuntalarai.blogspot.de/

to be healthier and better nourished, and seek pre- and post-natal care than women without education. It is estimated that one year of female schooling reduces fertility by 10 %[256]. The effect is particularly pronounced for secondary schooling and out of discussion for tertiary educated.

– Educated women seek medical care, ensure their children are immunized, are better informed about their children's and family nutritional requirements, education and adopt improved sanitation practices.

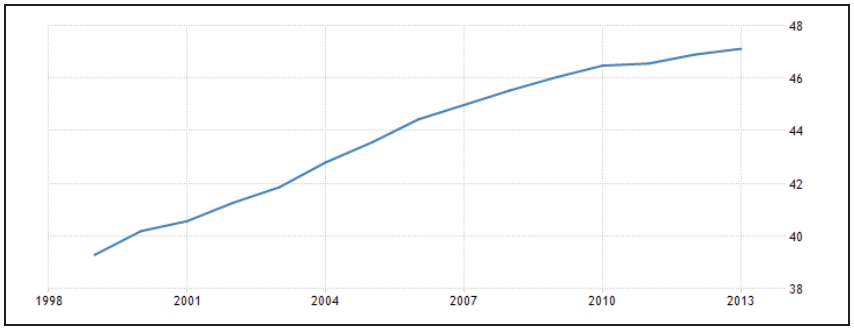
– Educated women tend to have better knowledge about health care practices. It is estimated that an additional year of schooling for 1,000 women helps prevent two maternal deaths.

– Girls' education ranks among the most powerful tools for reducing girls' vulnerability. It slows and reduces the spread of HIV/AIDS by contributing to female economic independence, as well as conveying greater information about the disease and how to prevent it.

– Mothers' education is a significant variable affecting children's education attainment and opportunities and healthier life. A mother with a few years of formal education is considerably more likely to send her children to school. In many countries each additional year of formal education completed by a mother is systematically translated into her children remaining in school for an additional one-third to one-half year.

– Education has been proven to increase income for wage earners and increase productivity for employers, yielding benefits for the community and society.

Graphic 1: Female Education Levels



Source: http://hdrstats.undp.org/2008/countries/country_fact_sheets/cty_fs_BEN.html and also World Bank Indicators – Benin – Participation 2015; at http://www.tradingeconomics.com/benin/primary-education-pupils-percent-female-wb-data.html.

[256] See http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTEDUCATION/0,contentMDK:20298916~menuPK:617572~pagePK:148956~piPK:216618~theSitePK:282386,00.html#why.

As we can notice in the graphic 1[257] and table 4 of female education levels, gender discrimination[258] is not easy to overcome in Benin. We should also prevent a wide generalization of the problem because, in this case of Benin; it is mostly rural and harder in North West, then added to the cultural specificities. Under the same conditions, the enrolment in urban area is higher independent on cultural specificities.

The graphic of education is expressive of the crisis that Benin has got through at the beginning of the millennium until now. The overall enrolment decreases, mainly female enrolment, according to the family budget.

Table 4: World Bank Indicators on Benin

	1990	**2000**	**2010**	**2014**
Ratio of female to male primary enrolment (%) in Benin	52.4	66.0	87.1	
Ratio of girls to boys in primary and secondary education (%) in Benin		60.9		
Ratio of female to male secondary enrolment (%) in Benin		44.0		
Ratio of female to male tertiary enrolment (%) in Benin		23.7		
School enrolment; preprimary (% gross) in Benin		6.6	18.2	
School enrolment; preprimary; female (% gross) in Benin		6.4	18.5	
School enrolment; preprimary; male (% gross) in Benin		6.9	17.8	
Primary education; pupils in Benin	**418272.0**	*932424.0*	**1787940.0**	
Primary education; pupils (% female) in Benin		40.2	46.5	
School enrolment; primary (% gross) in Benin	47.9	86.4	125.9	

Source: World Bank Indicators on Benin.

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257 See http://hdrstats.undp.org/2008/countries/country_fact_sheets/cty_fs_BEN.html and also World Bank Indicators – Benin – Participation 2015, "About primary education, pupils (% female) in Benin was last measured at 47.11 % in 2013, according to the World Bank, female pupils as a percentage of total pupils at primary level include enrolments in public and private schools. This figure and table have the latest recorded value, an historical data chart and related indicators for primary education-pupils (% female) in Benin" at http://www.tradingeconomics.com/benin/primary-education-pupils-percent-female-wb-data.html.

258 See also table 4: Gender Inequality and table 5: Gender-related Development Index under http://hdr.undp.org/en/data.

2.2 Overall Analysis of Enrolment

Three aspects of enrolment are applied to this analysis: the structure by level of education and its evolution, enrolment in relation to the populations at age, the estimation and analysis of enrolment profiles.

2.2.1 Enrolments by Level of Education and their Evolution[259]

We will see that population growth is also a source of problems.

The nursery/maternal Education

Of 18,621 children in 2001, the number increased to 39,136 in 2007 and to 109,449 in 2011. This shows acceleration, thanks to free enrolment, to strengthening infrastructure, grants and equipment, and sensibilization of communities in favour of an increase in demand in kindergarten.

Primary Education

The enrolment increased from about 1.05 million students in 2000-01 to 1.85 million students in 2010-11 to an average of 5.8 % over the last ten years in public and private; however, at 5.2 % between 2006-07 and 2010-11, against 4.9 % between 2000-01 and 2006-07 in the public schools.

General secondary Education

The average annual growth rate is of 10.5 % in the first cycle and 16.3 % in the second cycle of 2000-01 and 2010-11. Enrolment growth has averaged 13.1 % per year (against 10.1 % in the public) in the first cycle and 19.9 % per year (against 15.4 % in the public) in the second cycle.

Technical Education (undergraduate and graduate/first and second cycle)

Reasonably available and reliable for both the first cycle for the 2nd cycle data date back to the period before 2006-07. Thus, from the data on these enrolments with extrapolations and estimate calculations, it is possible to reconstruct the missing periods for cohorts based on global trend. On this basis, the average annual increase in enrolment over the past decade would be about 3.5 % in the first cycle and 12.2 % in the second cycle. However, enrolments globally appear to have relatively stable trend from the years 2003-04.

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[259] See the DPP different ministries in charge of education (MEMP, MESFTPRIJ, MHESR, MCAAT) and extracted Resen 2007-11.

Vocational Training

Mostly in private structures, there is an increase in enrolment of 11.1 % per year, while the public records a downward trend of around 2.3 % on average per year. This type of training[260] is particularly important for people to be able to have a positive perspective for their future, to develop their skills or retraining in other disciplines.

Higher Education

The number of students has increased from 31,299 students in 2000-01 to 95,629 students in 2010-11. These data show an average annual growth rate of 11.8 %[261]. In the absence of a system for regulating flow and orientation, pressure from the lower levels automatically alters the top that no longer has the resources to provide qualitative education.

On Literacy

According to information from the INSAE, the adult literacy rate is twice as high in urban areas compared to rural areas. For young people aged 15 to 24 in urban areas, the literacy rate is higher by almost 23 % points compared to rural areas from 55,6 % in rural to 78,2 % in urban. Men are more literate than women. The literacy rate of population aged 15-24 is higher than that of adult population. In the entire education system, the rates in general are growing, though to varying degrees.

Its speed and magnitude imply the questions about the teaching conditions (capacity of access, of training in line with the demand on labour market, quality improvement, standards, of the social equity and gender discrimination, of the external and internal efficiency), and the financial sustainability of these developments.

2.2.2 The Coverage of the Education System

The educational coverage in Benin can be explained by the relationship between enrolments and school-age population. From this emerge the calcula-

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260 Apprentice and Continuing Education.

261 Actual considered from 2007-08 does not include duplicate registrations. Thus, the actual question is the number of students, not the enrolment numbers.

tions of gross enrolment ratio (GER/TBS[262]). For higher education and technical and vocational education and training, we can also apply the TBS knowing that, for example, the various drops skew/bias the results. In fact, it is considered that the use of number of students per 100 000 habitants[263] is more appropriate. Again, these results in 100,000 can cause significant errors in interpretation from the perspective of educational policy. Moreover, the ratio between the 100 enroled in technical education and those of the general education actually transcribed the development between the two education~~'s~~ forms. In the evolution of these indicators of overall coverage[264] for the entire education system at all levels of education, the period of the 2000-2001 school year to the 2010-11 school year allow a refined result:

In nursery/maternal Education

In 2010-11, only 11.6 % of school-age children attended kindergarten. However, they are 5 times the **TBS/Gross Enrolment Ratio** (GER) of the school year 2000-2001.

In primary Education

With growth in decimal percentage points (10) higher than that of demography, some 84.5 % in 2000-01, the **TBS/GER** increased up to 101 % in 2006-07 and 114.5 % in 2010-11; primary education is able to accommodate all school-age children; but however, not all are enroled.

In general secondary Education

30.7 % in 2000-01 up to 62.9 % in 2010-11, doubling the **TBS/GER** of undergraduate/First cycle, and from 9.6 % to 32.6 % in the second cycle/Graduate;

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[262] For a given level, the gross enrolment GER/TBS is defined as the ratio between the number of enroled and that of the school-age normal population for this level of education (school-age population). TBS is an average over the whole particular cycle, which provides no information on the admission, retention during a cycle or access to the last year (completion). It artificially increases with the number of repeaters.

[263] For each of these two types of studies, the number of students per 100 000 population is defined as the ratio between the number of enroled and the total population of the country, which is multiplied by 100 000 See also the methodological note, "Mesurer l'avancée vers la scolarisation primaire universelle" by Nicolas Reuge under https://www.iipe-poledakar.org/fr/mesurer-lavancee-vers-la-scolarisation-primaire-universelle.

[264] See the DPP of different ministries in charge of education (MEMP, MESFTPRIJ, MHESR, MCAAT), population data of INSAE smoothed and projected, and some excerpts from the 2007 CSR Some values of the indicators presented here may differ from those CSR. Some values of the indicators presented here may differ from those obtained by CSR in 2007 because the calculation adopted here reports the enrolment of the school year t-t + 1 to the school-year t.

the fact remains that, generally, compared to the rate of population, most of the youth are not enroled at these levels of education. With regard to technical education, the number of students per 100 000 inhabitants rose exactly from 326 in 2000-01 to 659 students in 2010-11.

In higher Education

The indicator of the system has more than doubled over the past decade from 480 students/100 000 in 2000-01 to 1,080 in 2010-11 for a total of 95,629 students. The effectiveness of this level of education is measured by the employment of the outgoing, or better said, the rate of study (Education)/employment. In a subsequent study, we could see how the distortion, overproduction and inadequacy at this level of education are.

2.2.3 Analysis of the Enrolment Profiles

The analysis of educational pathways of individual requires a kind of specific indicators such as:

a) The level of access to each class,

b) the degree of survival within each cycle, and

c) the level of opportunity of transition between cycles.

d) The teacher/pupils' ratio, the lesser the number of pupils the better the results.

In the table below, by looking at the effectives, the volumes of survival and of transition are already deductible. In term of teacher/pupils' ratio, Benin has not done really better since the end of the 90th. We can also see the stressful number of pupils per level. Beyond the conditions of supervision of students/pupils, staff payment has undoubtedly a decisive influence on the level of expenditure per pupil and hence on the number of students that can be enroled for a given budgetary envelop.

Due to the tight budgetary constraints which the country has undergone over the last 10 years, the ministry was forced to hire contract teachers at a cost more compatible with the financial possibilities of the country rather than the recruitment of official teachers (we saw that the strong development of private education without state subsidies also helped mitigate the fiscal burden of government).

In terms of profile, the transversal/cross-section[265] profile of one or more cycles[266] will be defined. From 2006-07 to 2010-11, the access rate to the Instruction Class[267] (Classe de CI) is well above 100 % without translating universal access but indicates that the capacity of IC exceeds the number of children theoretically at age to enter this class.

Table 5: Ratio Pupils-Teachers at Different Levels of Public Education up to 2012

	Benin	Year	All Countries	SSA	Low & Middle Income Countries	Source
Pupil teacher ratio, Primary	44	2012	10 %	37 %	14 %	UNESCO Institute for Statistics (UIS)
Pupil teacher ratio, Lower Secondary	27	2004	20 %	55 %	30 %	UNESCO (UIS)
Pupil teacher ratio, Upper Secondary	16	2004	39 %	75 %	55 %	UNESCO (UIS)

Source: BENIN: Sub-Saharan Africa, Income Group: Low Income, National Education Profile, World Bank 2014 at http://www.epdc.org/sites/default/files/documents/EPDC%20NEP_Benin.pdf.
Lower data values indicate better performance on these indicators.

The rate of primary school completion has deteriorated from 68.0 % in 2006-07 down to 64.3 % in 2010-11 but registered 71.5 % growth for 2011-2012. A third of the cohort leaves on the way for the rest of their lives.

"With regard to the first cycle, the 6th form access rate has not changed significantly from 52.1 % in 2006-07 to 53.4 % in 2010-11. On the other side, access to 3rd Form rate grew from 29.8 % in 2006-07 to 40.8 % in 2010-11. With regard to the 2nd cycle, the improvement is observed both in the access as in the completion. The access rate in Second Form rose from 18.5 % in 2006-07 to

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265 The cross-section is defined as a result of access to each class rate, each rate is defined as the ratio of new entrants (non-repeaters) in the relevant class and the population that have the theory age of attendance for this class.

266 Access to class 5th is comparatively high in 2006-07 due to the exceptional success rate CEP (Primary School Certificate) in 2004-05 about 94 % against only 68 % for 2003/04 and 78 % in 2005/06. This has resulted in a large flow of students in 6th grade in 2005/06 who finds himself in fifth in 2006-07.

267 The 2010-11 data were collected as part of the RGPS, designed to update the sector diagnosis, but the survey questionnaire did not take into account the need to collect the age of pupils in the aim to not complicate the collection process. Also Resen 2011-12 using data from DPP and MEMP MESFTPRIJ and population data INSAE smoothed and projected.

29.9 % in 2010-11, and the access rate into Terminal Form from 12.6 % to 19.5 % on the same period"[268].

The private[269] schooling has contributed significantly to the rapid growth rates of enrolment. Overall in education in Benin, the proportion of students enroled in private schools increased from 12 % in 2000 to 14 % in 2009. The increase in the share of TVET is still very high (increased from 60 % of the sub-sector in 2000 to 71 % in 2007), as well as general secondary second cycle increased from 16 % in 2000 to 22 % in 2009.

2.3 Teacher and Teaching Staff

Until the 70s, teaching in Benin was made easy i.e. facilitated for the candidates. For primary school the national exam at the end of secondary I, then a 2 years complementary training were required to be a teacher. For secondary I level teacher, a baccalaureate at the end of secondary II plus a 2 years complementary training was also required.

For the secondary II level, a 2 years' attendance at the university was the minimum. With this method of training, the demand was satisfied, but was not the right way of qualitative education. The training was a rudimental pedagogy according to the teaching level.

2.3.1 Education and Training

At the end of the 60s and the beginning of the 70s, a school was established to train properly the teaching staff. Qualification is then measured in terms of number of years and modules that the ongoing teachers attained. For the entry at the school for teacher a baccalaureate is required. It is now a well definite and specialized curriculum for teaching. For the Primary Level, the ongoing teachers must attain the Teacher Training Institute for 2 years. At the end of the second year, they must take a national exam. For the Secondary Level I, the ongoing teachers must enroll at the University for 4 years Education at the faculty of Science of Education and Training. The candidates close up with a di-

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[268] See p. 30 in PDDS Present Phase 3; by Ministries in charge of Education, Cotonou in February 2013.

[269] See "Evolution of school coverage and extent of private provision" 2008 and 2009 p. 41 and, "Evolution of Student-Teacher Ratios in order of education" 2006 and 2009 (public subsector); p. 47 under http://unesdoc.unesco.org/images/0021/002171/217150f.pdf.

ploma. For the Vocational School, the ongoing teachers have their Masters of Science or they are engineers. For the Secondary Level II or High School and other intermediate Degree, Technical and Vocational School, either the ongoing teachers have taken their PhD.(Doctorate degree) or they have their Habilitation i.e. aggregation. With a habilitation, they are also allowed to teach at university. The number of women teaching at all level decreases progressively from the primary level to the tertiary. Benin is at the worst of case gender discrimination since 1985.

As we can read in "Les Nouvelles du Bénin"[270], in 2012, at the End of the school year, the aftermath of the examinations in Benin has demonstrated that Benin schools, at all levels, are really sick of their few teachers, poorly trained, poorly administrated and poorly managed. This situation has its source in 1985, a fatal year of school degradation and the beginning of the use in mass of unqualified teachers at all levels is completed by the abusive and disorganized expansion of the school board. Three types of teachers currently coexist in public education and they are complicating and biasing the education system in the country. At the primary level, there are the permanent State agents, contract agents of the State and of the community agents. At the secondary level where, instead of the community agents, they are contractors subdivided into several sub-categories.

Instead of a general selection by competition of all the education staff, the community agents and the contractors are building an exception. Most part of the community agents and the contractors are either graduated or not, but unemployed. Schools and parents use them for the short fall of teachers. They often do not have the minimum level required for the job.

The drama of bad qualification or minimum level already starts in the class of Elementary 2 (CE2) to reach its peak in Average 2 (CM2). The dimensions of the drama are provided by the fact that the drop out of Average 1 or 2 (CM1 or CM2) are teaching in maternal/children garden and First Form (CI). Parallel to this situation, the High school graduates without perspective at university are teaching core subjects in examination classes, such as the class of 3rd in the First Cycle.

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[270] See lesnouvellesdubenin/February 21, 2013/Uncategorized/Leave a comment under http://virgilhouessou.wordpress.com/2013/02/21/lecole-beninoise-est-malade-de-ses-enseignants/.

For instance, in 2005, exactly 7859 teachers, a third of the whole staff (23270) are community contractors at primary level. At the same time at secondary level, more than 80 % of the 10,793 teachers are of part time. Some colleges or Lyceums use more than 90 % of contractors. At tertiary level (university), only 16.3 % of the staff is professors and lecturers, qualified to teach in high education.

It is not surprising that at the end of a school year, some schools and education institutions record a zero percent (0 %) exam success because of teacher absenteeism over the year. Since 2005, the number of base classes in elementary and secondary schools are overcrowded and in some cases exceed the hundred students for unqualified teachers. Sometime, these teachers have the same level as their students and taught or are unable to discuss with their students. Furthermore, most teachers do not know how to handle the computers and know nothing about the internet. They are not interested and unable to meet the demands of children who are more and better connected in social network. At some school levels, girls are exposed to sexual abuses from their teachers independently of the ethics of the teaching profession. The whole system is corrupted. Per diems and travel expenses are the main targets instead of qualified training. The candidates are often absent at their seminars. Acts of presence are done at the right time of payment. Per diems are sometimes at the center of conflict between teachers and are subject to escalation, clientelism and cronyism. In the education system, per diems turn to be an instrument of blackmail and of management of human resources. From South to North, exponentially, public school teachers are leaving the classes for which they are normally paid to go to classes or private tutoring sessions at home with better pay, while women teachers are engaged in petty trading. In fact, the teaching staff often refuse assignments in rural areas and “negotiate with cash” to keep their place for long in urban areas although government pay them an “isolation bonus” since 2001. This highlights disparities in the allocation of teachers between schools within a city to the level of departments and the national territory. This is the reality in Benin education system.

2.3.2 Monitoring, Evaluation, and Staff Building

2.3.2.1 New Monitoring/Evaluation of the Sector

Program monitoring through the control of results implies in the process; the systematic collection of information about pedagogic results[271] and its external efficiency[272], systematic processing of these data, the implementation of required corrective[273] actions, availability of suitable human resources able to implement the management by results in a framework consequently organized. This new dispositive is one of the weaknesses of monitoring the sector. Standardization is for this sector the strategic axis for efficient control.

Beyond the enormous contribution of the private sector, the various ministries must make efficient: the supervision, monitoring and control in the aim to optimize the promotion of education. Moreover, one should revitalize the operational departments of education. Monitoring structures and system of control in the departments and municipalities will be strengthened in staff and technology.

– Departmental[274] structure of coordination and monitoring meets once per quarter. It may hire anyone whose skills are needed to monitor the implementation of activities and ensure their proper execution in space and time, and provide extensive information on the results of populations and assist in the mobilization around issues of the program and its implementation.

– Communal structure[275] meets monthly and oversees the progressive implementation of the Work Plan and provides local support to teachers to solve problems related to the goals of improving educational outcomes.

2.3.2.2 Control/Regulation of the System

To be effective, regulation must simultaneously consider flow management and allocation of teachers.

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271 The regular assessments of student achievement.

272 The qualification needs of the labor market, insertions of leavers, etc.

273 For educational evaluations, test scores, the state of the Human Resource allocation to schools.

274 This structure is chaired by the prefect or his representative and includes a representative of the Departmental Federation of Parents' Associations, the Receiver of Finance and the Departmental Director for Education. The latter is the reporter.

275 This structure is chaired by the mayor or his representative and includes CCS who is the reporter, the representative of the municipal coordination of the Association of Parents, the Receiver/Collector of finance and the representative of NGOs active in the sector of Education and involved in the community.

Management of the Flow of Student

The problem of flow management is inherent to all of African countries. Benin is not an exception to this rule. This has as consequence[276]:

- To limit the capacity of vocational training and higher education, to minimize the financial resources of the State;
- Qualitative degradation of both education (vocational and higher);
- Bad mismatch in the ratio training/employment;
- The low absorptive capacity of the market compared to the outgoing/outcome of the schools;
- Therefore, the plan with the introduction of information and guidance system, proposes: to apply enrolment only at the required age as the registration to test/examinations with normal required skills in line with the orientation's law and the requirements for entry to kindergarten, IC and up to the second cycle;
- Prioritize technical education and vocational training and creating pathways for short cycle/short curricula higher education;
- Access to second cycle of general secondary will be now conditioned by obtaining the BEPC, parallel to the desire to develop vocational training for students in the 3rd grade/form;
- The implementation of the LMD (Bachelors, Masters, Doctorate) system with selection;
- Restructuration of awarding scholarship system toward the science pathways;
- Inclusion in employment or professional long internship as part of the transition between undergraduate and graduate (Bachelor and Masters);
- For higher education quality, limit the recruitment of students to the number of places available and according to specific criteria.

The plan was designed but it has not the required staff for its implementation. This case is for instance how the government of Benin is ready to lose money and time at the cost of citizens.

Management and allocation of teaching staff

A significant deficiency is supported by the mismanagement of working teachers. Between 2010 and 2020, the stock of teachers in chronic deficit will be

[276] See PDDS Actualized Phase 3; p. 85.

increased by 50 % from 42,683 to 61,843 just for kindergarten, secondary and technical. The strong politicization of the education system has led to non-implementation/respect of laws in force for personal transfers. It is forced to[277]:

- Adapt the different modes of recruitment and management of human resources to decentralization;
- Reinstate the recruiting on job;
- Update and disseminate texts on teacher management;
- Audit the use of vacation hours and reduce the waste of resources;
- More accountability of deconcentrated structures. For example, the departmental offices/directorates must allocate to district schools teachers that will then be distributed according to need;
- Deconcentrate inspection in the secondary like in the primary to strengthen the close monitoring of the program implementation and teacher presence at school;
- Computerized personnel management to facilitate career management;
- Regulate union representation by the organization of professional elections;
- respect the principle of paying only the worked hours so then to limit the high propensity for strikes.

In the long term, a specific diagnosis on the teachers[278] issue was made in 2011, which raises the following problematic[279]:

- Chronic shortage of teachers;
- Need of training (initial and ongoing) to meet the specific educational needs (APC, combined and multi-grade class, dual mode …);
- Dysfunction in the system of allocation and transfer of teachers;
- Teacher absenteeism;
- Voluntary redundancy due to dissatisfaction of the profession;
- Diversity of statutes that undermines wage policy;
- The issue of financial sustainability of this wage policy;
- Low efficiency of social dialogue.

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277 See PDDS Actualized, Phase 3, p. 86.
278 TISSA: Teacher Training Initiative for Sub-Saharian Africa.
279 See PDDS Actualized Phase 3, p. 86.

2.3.2.3 Teacher needs and build up a Staff

The calculation of the needs is previously done in terms of ratio and according to the enroled.

Capacity Building of Staff

"The success of the implementation of the Ten Year Plan is dependent on the ability of actors to plan, manage and evaluate actions taken"[280]. To do this, it was necessary to:

- Update the post description and profile of each player, to develop and disseminate tools necessary for the successful finishing of work;
- Redeploy staff at the benefit of planners' structures in order to monitoring results;
- Audit structures to assess needs and provide the most relevant strategies;
- Harmonize the structure, content even, control and coordination of departmental training plans;
- Develop in the medium term, a national system for capacity building and standardization of costs.

The weight is placed on continuing education for the statistical skills to be deployed in the deconcentrated structures as for teachers in order to inverse propensity for frontal method while programs are designed according to the competency-based approach.

Causal Situation of Beninese Schools

Beninese pupils are not competitive compared to other Francophone African countries. Students do not succeed, and those who do are not competent enough. An alternative is the contract of objectives that leads school administrators to set challenges that may be priced. The PDDSE provides an experiment of this kind of contract of objectives. In a causal relationship, realistic and achievable goals that a teacher has now set up will determine the results expected from him according to its available resources.

A comprehensive document was prepared detailing the different types of objectives. These performance contracts will be accompanied by incentives, by measures of evaluation of central and deconcentrated (inspections) administrative structures to promote good administrative practices with an effective ac-

[280] See PDDS Actualized Phase 3; p. 78.

countability and transparent system. This first phase of experimentation will especially help develop a culture of educational administration at the service of the concerned.

3 System and State of Education, Resources and Facilities

The main notice that one could make in this context is to have the focus on the whole system i.e. at first. How it is implemented? How is the structure enforced? How is congestion avoided over decentralization and deconcentration? Along this work, a part of the following points of the diagnosis[281] of education (demographic effects) was already discussed before. Now we will go into the system first. It is important to clear it off for a sound comprehension.

a) Implementation of the System

Government paper presents the budgeted action plans over 3 years detailed in the manual of implementation[282] with a timetable. This manual eases the use and the updates. Accountability of its development and its publication lay by the STP. Each department/ministry prepares its indicative annual budget program as well as the STP. We are thus faced an enormous dispersion between the national budget, departmental/ministerial budgets and external financing. STP ensures the total consistency of proposed budgets and by concerned services. A perfect adequateness between the PTA and PDDSE requires compliance with the commitments made by the state. These plans are submitted to regulatory budgetary tools of anticipation on the procurement code.

PTA: Annual Work Plans
CPSE: Monitoring Committee of the Education Sector
CCSE: Coordinating Committee Education Sector
STP: Permanent Technical Secretariat

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[281] Diagnosis of education is structured around the following 5 points: 1) demographic constraints and the macroeconomic context of the development of education; 2) financing of education; 3) the overall analysis of schooling; 4) analysis of efficacy (internal and external) and quality of the system; 5) analysis of the management of system resources, particularly the management of human resources, material and financial resources as well as the transformation of resources into learning outcomes for students. See PDDS Actualized Phase 3; p. 17.

[282] See explanation of table 29: Summary of planed resources and expenditures (millions of FCFA), p. 73 in PDDS Actualized Phase 3; Ministries in charge of Education, Cotonou in February 2013.

CCSE: Coordinating Committee for Education Sector
FCB: Common Fund Budget
GLE: Local Education Group

b) Enforcement Structures[283]

The focus is on the officials involved in the implementation of activities. Responsibilities are divided vertically and horizontally in the administrative and implementation pyramid of activity-programs. The UATS, tangible element of STP, provides specialized support to the activities based on external financing. This support consists of technical advice and support. Tasks are specific to the actors of the program and include:

- Consolidate and submit implementation schedules of the program in accordance to the implementation manual;
- Ensure the adequacy of integration of activities;
- Ensure that everyone involved in the executive has a mastery of his job, is responsible and competent and reports his performance (accountability);
- Suggest adjustments resulting from the monitoring of implementation;
- Generate and transmit the STP-PDDSE periodic reports of physical and financial execution;
- Prepare draft information materials related to the program and communication between the different actors.

3.1 Central with Decentralized Administration

In fact, there is no challenge between the central administration (MOE) and its regional and sub-levels down to local directorates. The MOE centralized all the procedures of administration and management. It is the place where decisions are made. It delegates some autonomy to other levels build up in the same scheme but lower as the MOE. It allocates to each level resources and staff. The 5 levels are following:

- MOE to Departments
- Department to Sub-Prefectures
- Sub-prefecture to communities
- Community to localities
- Locality to towns and villages.

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283 See PDDS, Actualized Phase 3, pp. 71-72.

Each of these lower levels is in charge of supervision of the education requirements, management of the allocated resources, and the adequate and efficient implementation of the decision made by the upper level. Except the Health entities which are administrated by the Ministry of Education and that of Health (rights of view on Health Education), all other educational forms are subjected to the MOE.

As we have seen above, there is a crude lack of resources[284] and staff. It is due to a misallocation of the inputs to improve education at national level. Whereas the Coastal Departments are well-allocated and provided, the rest has to manage with poor amount of inputs. This has later some virulent impacts on the educational outputs.

Strengthening deconcentration and decentralization

The need of strengthening is justified by the problems and malfunctions. To remedy the problems, it was established an effective process of working out and validation of a deconcentration/decentralization with a communication system.

Deconcentration

To enhance the efficiency of the functions, a deconcentration process is necessary for the daily operation of schools, actions at the classroom level, to update and acquire the tools of intervention in the functioning of schools. For this purpose, it is necessary to have a management service closer to users; to promote and develop local initiatives; to optimize the distribution of roles and responsibilities at all levels in the management and delivery of services. There are measures to solve the problems such as:

- Redeployment of staff from central services down to the deconcentraded structures;
- Over objectives with indicators and a regular monitoring; accountability of local services for primary, general secondary, technical and vocational education;
- Greater autonomy for district primary schools and toward departmental directorates for high school; in school organization (school calendar, flow management, educational organization, the allocation of teachers …);

[284] See for example the case of financial resources in the following paragraphs.

- Strengthening the authority of the district's chiefs on the presence and attendance of teachers in relation to the compliance of school time;
- The performance of deconcentrated structures (Departmental Directorates and CS) will be shared with transparent information for all actors (communication of outcomes and publication in the press)[285].

Decentralization

Decentralization allows a closer and more efficient management of the educational services. It began with transfers for school building and educational inputs. It will be followed by:

- The establishment of system for monitoring and evaluation of transfers to municipalities;
- The use of deconcentrated dispositif[286] of the Prefecture to track the consumption and use of funds and report to the Prefect who controls them. At institutional level, in municipalities, CCS and CEG managers manage funds and report with transparent and detailed accounts to their superiors;
- Mandatory posting and publication in the press of the amounts transferred and categories of allowable expenses;
- Clarification of roles, responsibilities and competences of accountants and others assigned to districts for the execution of the process of resource management and dissemination of information;
- The adoption of laws and regulations detailing the roles, responsibilities and authority of all local stakeholders.

By introducing such a control and monitoring rule into the educational system, the MOE has a better view on the operation and records. These in turn are the opportunities to track mismanagement and misallocation of resources and by the way the occasion to promote meritocratic.

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[285] See PDDS Actualized Phase 3; p. 75.
[286] The Departmental Administrative Conference (CAD), or departmental directors meeting.

3.2 Financial Resources for Education[287]

Over the past decade, Benin has succeeded in increasing its tax income significantly. This has, in particular, helped to reduce the current budget deficit. At the same time, the proportion of the State budget allocated to the education sector has been reduced.

Public spending on the education sector presently represents only around 2.9 %[288] of GDP. In the case of Benin, the volume of HIPC resources will be relatively limited, and the country will essentially have to rely on its own resources and on ordinary international aid[289] to mobilize the necessary funds to finance the development of its system, in terms of quantity and quality. It is unlikely that a significant growth in tax pressure[290] will happen, because it is also necessary to encourage economic growth. Two possibilities therefore remain:

a) To try to increase the weight of the education component in the State budget. The proportion of the budget allocated to education currently stands at 16 %, and the Government should be persuaded to raise it up to 20 %. It should be emphasized, that even with tax pressure at 19 % of GDP in 2010 and a 20 % allocation to education, public education spending will still represent a fairly modest 3.8 % of GDP and nearby 75 % of it go to salaries;

b) To try to encourage private sector involvement at the post-primary level and integrate it more effectively in the overall strategy for the sector (since the private sector presently receives no aid from the state, it has a role in education policy largely by default).

Efforts to find additional funding should not obscure the most important concern: the need to make better use of available resources. In this regard, a number of points related to improving efficiency and equity in the use of public funds have already been addressed. Even so, consideration could be given to improving the capacity of the ministry to make effective use of the loans

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287 See explanation of table 29: Summary of resources and expenditures (millions of FCFA), p. 73 in PDDS Present Phase 3 and World Bank, in "Série Développement Humain de la region Afrique", document de travail, Le système éducdtif bèninois, Performdnce et espaces d' amelioration pour une politique éducdtive, January 2002, Washington, DC, 16th November 2016 at 3:15 PM under http://documents.worldbank.org/curated/en/495671468743355084/text/multi0page.txt

288 Whereas in African HIPCs, the average is around 4 %, and this will increase as resources are freed up by the debt reduction initiative.

289 Benin is also Oil Producer.

290 Presently at 17 % of GDP.

placed at its disposal. Budget resource utilization rates below 90 % suggest that improvements of internal procedures and ministerial spending arrangements are certainly conceivable. This in turn raises the question of how well the system is managed. We can also have the look at the Gross National Income (GNI). The GNI of Benin has been in steady increase since 1990. GNI[291] per Capita, PPP (US$) was 790,- (in 1990), 1150,- (in 2000) and 1580,- (in 2010). In another term, the proportion of the country's wealth generated in a financial year, that has been committed by the government to the development of education. In this case, it is the amount allocated to the MOE and Public Expenditure on Education in Government Total Expenditure[292]. It is really difficult to calculate exactly this amount due to the lack of fiscal transparency and accountability. "The sources of the wealth" are much diversified but not enough to satisfy the system.

The costs of education policy require resources that are beyond the capabilities of the Beninese State. For the next three years (2013-2015), total expenditures amounted to 642 890 761 000 FCFA. On the other side, potential domestic resources amounting to 584 167 314 000 FCFA mean around 91 % of the planed requirement, an overall gap of 58 999 000 000 FCFA (9.18 % of the total resources needed) is still to be bridged.

The resources are in detail allocated as follows: Expenses of quality improvement amounted to 69.5 %, access 19.1 %, and control 11.4 %, investment 14 % of the overall cost. Benin submits a funding request to the Global Partnership for Education (PME). It is hoped about 21 150 000 000 FCFA some 35.8 % of the gap. Foreign partners will bring almost 18 107 000 000 CFA with sound 11 251 000 000 under the common budget fund[293] . The total external funding will amount to 39 257 000 000 CFA.

Despite this fiscal strength, it lacks for the objectives of the sector an amount of 19 742 000 000 FCFA a sound 3.1 % of global resources required. Four special partners bring tremendous support to the sector, but they are reported separately for the purposes of harmonization: UNICEF (one billion five hundred million FCFA), the Swiss Development Cooperation (approximately thirteen

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291 http://www.tradingeconomics.com/benin/gni-per-capita-ppp-us-dollar-wb-data.html.

292 See further information in paragraph Macro-Economic Aspects of Education.

293 In the spirit of the Paris Declaration, some partners had set up a Common Budget Fund. The principle will be extended in the new program.

billion FCFA), CARE (about hundred million), and Plan Benin (about four hundred ninety-five million). The financial contributions of families under the effort toward enrolment are estimated at 153 billion CFA francs, of which 42 % are only for primary education. Investment resources increase from 9 % to 16 % over the same period.

3.3 Costs and Financing System

In Benin, the state funding is the clearer, much easier to understand the resources mobilized for the education sector. It would be desirable to have estimates of unit costs and to analyze the factors that shape their variations from one educational level to another, and each of them from one school to another. In the extent that these data allow, this information will be discussed from two perspectives:

– Diachronic, to observe trends and

– Synchronic in order to place the choice of Benin at the international level, by reference to those of comparable countries.

These aspects will not be developed because, in the following paragraphs, costs and financing will be wide better studied direct to their effects on education.

3.3.1 Macroeconomic Context and Public Finance

The level of budgetary resources allocated to the education sector depends on three main factors: Gross Domestic Product (GDP); Revenue of the State; Arbitration made to the education sector compared to other sectors of social activities.

The development[294] in key macroeconomic and fiscal aggregates traces 2000 to 2010 as well as the changes in gross domestic product (GDP) even considerate per capita, as well as public finance in the form of mobilized resources, as well as the aggregate expenditure and incurred by the state. Between 2000 and 2010, GDP has an average growth rate of 6.8 % per year. However, the real growth was only 3.9 % per year; a very modest result of 0.9 % per year induced by the rapid population growth. Over the last five years (2006 – 2010), Benin's economy has undergone various exogenous[295] shocks that have slowed

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294 See State Reports on National Educational Systems **RESEN** 2011.

295 The food crisis, the energy crisis and flooding.

economic growth and tax revenues and to slowdown the rise in per capita income. The real growth rate of GDP and GDP per capita[296] were respectively 3.7 % and 0.7 % over the period 2006-2010 against 4.6 % and 1.3 % for the period 1995-2005.

This macroeconomic performance has resulted in a significant increase in the incidence of income/monetary poverty[297] from 33.3 % in 2007 to 35.2 % in 2009. Tax and nontax revenues have increased by 53.7 % from 2005-2010. They represent 16.7 % of GDP in 2000 to 18.6 % in 2010. On the other side, tax revenues, due to different exogenous shocks, have slowed dramatically and result in a fall in the tax burden by 1 point from 17.2 % in 2008 to about 16.2 % in 2009 and 15.2 % in 2010.

Domestic resources are supplemented by external resources (budgetary support, loans and grants projects) and these have experienced significant fluctuations from 50.6 billion in 2005 to 48.1 in 2010 with peaks in 2007 (86.8 billion) and 2009 (100.1). Lastly, regarding the expenditure of the state, an increase in current values is observed between 2005 and 2010. They spend 321.4 billion FCFA in 2005 to 525.0 billion CFA francs in 2010. The share of current expenditure in total expenditure of the State is in an up and down way, dropping from 70.6 % in 2005 to 66.1 % in 2007 before rising to 74.8 % in 2010. In addition, the structure of expenditure experienced a change during this period: current expenditure excluding debt accounted for 69 % of total public expenditure in 2010 against 60 % in 2000. The increase in current expenditure has been at the expense of capital expenditure, decreasing from 36 % in 2000 to 25 % in 2010 in total public expenditure. Over the period 2002-2010, in billions of CFA current and constant (with 2010 as the base year), the evolution[298] of public education expenditure in total expenditure is on average with 18.7 % in 2007 (15.8 %) and 2010 (24.8 %). Total public expenditure on education represents an average of 4 % of GDP.

Current education spending averaged 24.5 % of current expenditures excluding debt of the state with strong values of 28.4 % in 2009 and 31.4 % in 2010. Current expenditure of education constitutes the bulk of public expenditure on ed-

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296 See INSAE, National Accounts 1995-2005, 2006-2010.
297 See INSAE, National Accounts based on EMICOV Report.
298 See State Report of the National Educational System (RESEN): Resen Report of 2011.

ucation. They have averaged 89 % of total expenditure between 2002 and 2010.

3.3.2 Macro-Financial Frame

Despite financial[299] efforts, the Beninese education system suffers enormously of quality and equity. In order to evaluate the real capacities of financing and of strategy; a model taking into account the objectives and targets defined was set up with basic year 2010. It turns out that the government needs to find additional funding sources to cover the hole.

3.3.2.1 Imperatives associated to the Model

In the macro-economic[300] framework of the model, we can adopt the following premises:

- An annual ideal population growth of 2.8 %;
- Real growths[301] in constant GDP prices estimated at 4 % in 2012, 4.5 % in 2015 and 5 % in 2020, representing an annual average growth of 4.7 %;
- Growth in the share of domestic revenue (excluding grants) in GDP from 18.6 % in 2010 to 20.4 % in 2015 stabilized until 2020;
- Current expenses out of state revenues for education would increase from 31.1 % in 2010 to 30.5 % in 2015 stabilized at 30.0 % until 2020;
- Priority given to primary education i.e. 12 % of the revenue allocated to current expenditures on primary education only.

The total resource available[302] for education (operating and investment) would increase from 167.9 billion in 2010 to 202,4 in 2015 and 248.9 billion CFA francs in 2020[303].

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299 On average, 30 % of current expenditure excluding debt.
300 See PDDS Actualized Phase 3; p. 58.
301 Measures used by the IMF and World Bank.
302 Given the uncertainty of the inflation rate over the next few years, state resources were calculated in constant 2010 FCFA (base year in the model simulation.
303 See table 22: Estimates of state resources can be mobilized for the education sector in 2020, PDDS Present Phase 3; p. 58.

3.3.2.2 Capital/Investment Expenditures

Following the current expenditures[304], we should also consider capital/investment expenditures. In fact, these expenditures will amount to 29.7 billion/year from 2013 to 2020. Of these expenditures, we have:

- the construction of new classrooms and literacy centres;
- the construction of toilets;
- renovation of the classes;
- the maintenance and repair of the infrastructure and the equipment.

Over the period from 2013 to 2020, the construction needs is estimated for preschool classrooms at 314 classes/year, for the primary at 1199, 237 for general secondary, for technical education it is a complete high school, around 1,5 centre for the vocational training, for higher education some 1865 places for students, and for literacy 12 centres.

3.3.2.3 Consolidation of macro-financial Framework, Allocations and Expenditures

All expenses considered, it appears that the need for funding requires huge additional funds that are not vacant in the national budget. The budget of expenses incurred by the Ministry of National Education and Scientific Research (MENRS) has four positions: two for current expenditures and two for capital expenditure.

Current expenses/expenditures, pre include primarily personnel costs and operational expenditure managed by MENRS under "*Apportionment of shared burdens*". There are also current expenditures under the heading of "unallocated" on which the Ministry of Finance exercises greater control. They are included in the common expenditures of the state budget and include primarily the costs of transfer and operation. In the case of school and secondary first cycle, current expenses increased slightly respectively from 2.4 to 3.5 % and from 18.4 to 20.5 %; while the primary level decreases from 49.1 to 41.7 %; whereas professional training increases from 0.2 to 2.4 %.

Capital/investment expenditures are part of a share in the Socio-Administrative Equipment Budget (*Budget d'Equipement Socio-Administratif* BESA) and secondly in the education section of the Public Investment Program (PIP) of the

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[304] See PDDSE, Present Phase 3, Accounts Report.

general budget of the State. Regarding these expenditures, we find that the primary education will retain more than half of this spending until 2020.

Preschool is second followed closely and respectively by technical education, secondary education and vocational training. The search for additional funding is a major issue for a successful implementation of education policy. Chosen strategies[305] generate significant needs in particular for the first two phases 2013-2015 and 2016-2018.

3.3.3 Allocations and Expenditures

On our requests, the Service of Budget did not provide the data for 2000-2015; but out of the PDDS Actualized, Phase 3, we can find some others relevant information. We should pay attention to one point. The information in the following tables can help to estimate and to understand the actual situation of education in Benin.

The following Tables (6-8)[306] recount the evolution of major components of the budgets voted in favor of MOE. These data highlight quite sensitive changes in the structure of the budget between 1992-1998. Thus, budgetary allocations for staff that represent 72 % of block grants and 79 % of current allocations in the 1992 budget represent only 57 % and 73 % respectively in the 1998.

These major structural changes have a double origin:

- Firstly the strong constraints on the evolution of the salary mass since 1986 in the context of macroeconomic adjustment;
- Secondly the evolution of non-salary expenses themselves.

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[305] The implementation manual is an operational tool in time and space with a sharper specification of the responsibilities of the actions planned in PDDSE. It is organized according to each program and introduced by a general part which provides the guidelines for use of the manual. This dynamic document better clarifies the measures of implementation of the plan by detailing in a spirit of flowchart, the activities to be undertaken to ensure that the prerequisites are still in place. It is regularly adjusted for institutional restructuring. Also table 25: Summary of financing gap and table 26: Overview of the total gap in PDDS Actualized, Phase 3.

[306] See MOE Annual Budget Report 2002 and World Bank Report on Benin Education 2002.

Table 6: Public Expenditure on Salaries and Operation Level of Education

	Staff		Goods & Service	BE-SA	Trans-fers	Scholarships		Total	%*
	Teacher	Non-Teacher				In Benin	Ab-road		
Alphabetisation	0	0	219	60	265			544	0
Kindergarten	2729	187	461	46	311			3735	2
Primary	56504	3880	9541	952	6445			77321	49
ENI	132	127	12	2	457	594		1323	1
Secondary I	21562	4128	1489	761	217			28157	18
Secondary II	10903	2146	766	387	0			14202	9
ET I	590	118	748	28	105	206		1795	1
ET II	1376	298	1771	67	249	27		3788	2
Prof. Education	57	46	99	4	65			271	0
Superior/High	7919	2727	2302	132	5261	7435	734	26510	17
Total	101772	13659	17406	2441	13376	8262	734	157648	100
Distribution in %	64.6	8.7	11.0	1.5	8.5	5.2	0.5	100 %	

Source: MOE, Service of Budget. ENI = (Ecole Normal Intégré) Normal Integrated School;
ET = (Ecole Technique) Technical School, * = per levels.

The breakdown in table 6 allows a fine approach of the whole expenditure amounting by more than 157.6 billion FCFA in 2010 for example. It is noted that payroll represents a very heavy burden on the budget. Teachers about 65 % to non-teachers at 9 %, the burden of scholarships in higher education was 5 % so then about 9 billion FCFA.

Let consider the population growth of the country in comparison to the total expenses for education. From 1993 to 1999, the voted budget increases in overall average percentage per year of 15.68 %. If we do take this value as a constant rate over the past 7 years, the estimated budget should be in 2000 at 58244 million FCFA, 2001 at 67376 million, 2002 at 77941 million, 2003 at 90162 million, 2004 at 104 300 million, 2005 at 120654 million. The population average growth rate per year is about 3.1 % over the same period. In 2015, Benin population will reach the 11 million citizens from some 3,2 million in 1975. In the above period from 1993 to 1999, the growth was from roughly 5,2 to 6,1 millions, it means an increase about 17.35 %. By no mean, at this speed and dynamic, Benin can ever reach such amount of voted budget for education. Rather, the increases turn around 6 %.

Therefore, this amount doesn't suit the needs in the country, so then; the private sector of education progressively is taking over. It is not the best solution to let private sector taking over because of the entry barriers and adverse selection through the fees.

Table 7: Benin Population from 1960-2016

Year	Population	Growth Rate	Year	Population	Growth Rate
1960	2 415 857	1.26 %	1995	5 886 226	3.55 %
1965	2 609 361	1.74 %	2000	6 844 929	3.03 %
1970	2 877 211	2.12 %	2001	7 062 139	3.17 %
1975	3 223 753	2.43 %	2002	7 294 828	3.29 %
1980	3 668 267	2.73 %	2004	7 794 239	3.37 %
1985	4 225 616	2.95 %	2005	8 052 579	3.31 %
1990	4 918 756	3.32 %	2009	9 107 254	3.02 %
1991	5 091 898	3.52 %	2010	9 375 390	2.94 %
1992	5 280 376	3.70 %	2014	10 460 357	2.69 %
1993	5 480 323	3.79 %	2015	10 739 156	2.67 %
1994	5 684 607	3.73 %	2016	11 027 717	2.69 %

Source: "Benin Population clock" by Countrymeters Information under http://countrymeters.info/en/Benin.

3.3.3.1 Evolution of Current Expenditure

Current expenditure at a percentage of 90.5 % in 2010, is still the largest component of public spending. They[307] went from 59.2 to 157,6 milliards CFA francs, a real increase of 166 % between 2000 and 2010. The financial impact including "5 different major steps" from 2007 to today has substantially increased the costs of Beninese State. For example, between 2000 and 2010, the share of salary expenditure has greatly increased by 5.5 percentage points and that of transfers by 6.7 percentage points to reach 73.2 % of all expenses.

3.3.3.2 Changes in Capital Expenditure

The growth in investment[308] between 2000 and 2010 happened at the expense of current spending. In addition to the peak in 2001 of $ 18 billion; the investment has steadily decreased over the period down to 5.5 billion in 2008. Currently, investments are evaluated at 16.6 billion; they rose from 37.5 % in 2000 to 62.3 % in 2010.

3.3.3.3 Public Expenditure on Education by Level of Education

The distribution of current[309] expenditures operating per school level[310] in 2006 and 2010 can be explained as follows. Primary education has declined from

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307 See PDDS Actualisée, Phase 3; Ministères en Charge de l'Éducation, Cotonou Février 2013 p. 22.

308 Here, the own resources of the State, also on pp. 22-23 of PDDS actualized.

309 See RESEN Expenditure Account 2011.

54.7 % in 2006 to 49.4 % in 2010 for the benefit of general secondary education, which in turn rose from 19.8 % in 2006 to 27.8 % in 2010. Particularly the First Cycle/undergraduate whose share rose from 12.7 % in 2006 to 18.5 % in 2010 within 4 years. The conversion of contract officers increased the costs of the secondary education. The parts of technical and vocational secondary and higher education have declined over the period from 4.8 % and 19.1 % to 3.7 % and 16.7 %.

3.3.4 Actors Financing Education in Benin

The study of education expenditures in Benin and their financing is greatly facilitated by the existence of an economic account of education ECE (or compte économique de l'éducation CEE) established by a national team with technical support from the International Institute of Educational Planning (IIEP-UNESCO) and the financial support of CLEF-USAID Project.

With regard to education spending financed by families, only the clearly identifiable expenses (e.g. tuition fees in private schools, school-fees in public schools) are taken into account, leaving aside other real expenditures (i.e. private lessons[311] fairly common in large centers) because they can be estimated with sufficient accuracy. Also are not taken into account the relative cost of:

a) informal education (community schools, learning on the job);

b) literacy (under the Ministry of Culture);

c) continuing professional development for non-teaching staff.

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[310] By State Department/Ministry.

[311] See "Le système éducatif béninois, Performance et espaces d'amélioration pour la politique éducative", Série Développement Humain de la Région Afrique, Document de travail du Département du développement humain, Région Afrique, Banque Mondiale, Janvier 2002. "It is currently difficult to estimate correctly family expenditure for private tutoring given home to their children. It is known only through a survey conducted in 1997 in the school district of Parakou, these amounts were not insignificant in Primary: • Public education: between 1,000 and 2,000 FCFA by child per month (9 months per year), • Private lessons: between 1,300 and 4,000 FCFA per child per month (excluding students of CI).
According to this survey, in public primary education, the vast majority of parents use school teacher or home tutors for their children. The principal causes of that situation were, according to this investigation, the feeling of a diminished quality of primary education, lack of private educational institution nearby for some families, the high cost of such an institution when there is one nearby. Applied for enrolment in primary education in urban areas, such unitary expenditure leads to large amounts that should be taken into account. As an illustration, a quick calculation on the basis of an expenditure of 1,000 F.C.F.A. per child per month for half of the students in public primary and 2,000 F.C.F.A. per child per month for two-thirds of students in private primary results for the 1997-98 school year alone and the only primary level, to an expenditure of nearly $ 4 billion F.C.F.A.".

The salaries mass of contract teachers was recruited in large numbers from 1997 up to 2000 and less for the following years. The obtained net contributions of different funders in the national expenditure on education shows that, while the share of national expenditure of state-funded education is the strongest, it represents over 50 % of the total, the parents (which we have seen that their contribution was widely underestimated) assume the second largest share near by 30 % of national expenditure. NGOs and external funding (each about some 5 % of total expenditure) complete the funding structure. Local collectivities and self-financing schools provide only enough limited contribution. We can note that, in private education, families are those who, at 86 %, provide core funding, while in the public, the parents' contribution reaches 16 to 17 % of total spending. It should be noted here that the contributions of local and external financing are directed exclusively to the public sector.

3.3.5 Expenditures and Types of Education

In Benin, the data on the separation between the two secondary cycles (general and technical), in particular, is not available. At this stage, only the five main levels of education can be documented. Expenses not directly allocated to these levels (e.g. general administration and educational research), were apportioned among the five levels in proportion to the salaries mass for each level of education in public education; since the MENRS is not involved financially in private education. Spending and the structure of expenditures[312], revenues (tax and non-tax) recorded an increase of 53.7 % with the help of reforms and economic growth from 2005 to 2010 despite exogenous shocks. Indeed, domestic resources are supplemented by external resources (budget support loans and project grants) that spend 50.6 billion in 2005 to 100.1 milliards in 2009 then fall to 48.1 milliards in 2010. This huge fluctuation is a clear danger to all projects and programs implementation.

[312] See "PDDSE: Plan Décennal De Développement Du Secteur De l'Éducation Actualisé Phase 3/2013-2015", Cotonou, Februar 2013, p. 21, table 3 and RESEN 2011.

Table 8: Evolution of Public Spending on Education from 2000 to 2010

Public Expenditure on Education: Current Expenditure					
	Current billion FCFA	Billion CFA in 2010	% of GDP	% Total Public Expenditure on education	Current spending out of state's debt
2001	49,50	63,5	2,7	78,0	--
2002	51,40	64,5	2,6	81,7	20,8
2003	57,60	71,1	2,8	82,1	21,1
2004	70,70	86,9	3,3	84,5	24,3
2005	82,60	97,2	3,6	90,2	26,3
2006	86,00	98,1	3,5	90,4	23,9
2007	85,30	95,0	3,2	92,3	22,3
2008	110,3	114,6	3,7	95,4	22,1
2009	139,5	142,1	4,5	94,3	28,4
2010	157,6	157.6	4,9	90,5	31,1
Capital Expenditure					
	Current billion FCFA	Billion CFA in 2010	% of GDP	% of State's Expenditure in total capital	% of State total Expenditure
2001	14,0	18,0	0,8	--	--
2002	11,5	14,5	0,6	9,6	16,5
2003	12,6	15,5	0,6	8,9	16,5
2004	13,0	16,0	0,6	9,9	19,5
2005	9,0	10 ,6	0,4	6,7	20,1
2006	9,1	10,4	0,4	8,0	19,7
2007	7,2	8,0	0,3	3,6	15,8
2008	5,3	5,5	0,2	3,0	16,9
2009	8,4	8,6	0,3	2,8	18,3
2010	16,6	16,6	0,5	9,3	24,8
Total Expenditure					
	Current billion FCFA	Billion CFA in 2010	% of GDP	% total State Expenditure	
2001	63,5	81,5	3,5	--	
2002	62,9	78,9	3.2	16,5	
2003	70,2	86,6	3,4	16,5	
2004	83,7	102,9	3,9	19,5	
2005	91,6	107,8	4,0	20,1	
2006	95,1	108,5	3,9	19,7	
2007	92,5	102,9	3,5	15,8	
2008	115,6	120,1	3,9	16,9	
2009	147,9	150,7	4,8	18,3	
2010	174,2	174,2	5,4	24,8	

Source: Resen 2011quoted in PDDSE and adjusted by the author.

Similarily for current expenditure in total expenditure of the state, they also have very regular fluctuations alternately rising and falling. The current education expenditures constitute the bulk of public expenditure on education.

Following a policy of incentive in part by increasing salaries and other benefits, the conversion of contract staff in state officials and free enrolment, expenditure patterns change and increased in value. The increase in spending came at the expense of investment. The details of the amounts are in table 8 above: Evolution of public spending on education from 2000 to 2010.

3.3.5.1 Current Expenditures[313]

Nursery/maternal Education

The goal is to increase the number of preschool children from 97,333 in 2010 to 142,033 in 2015 and 188,811 in 2020, so then gross enrolment in kindergarten respectively of 10.6 %, 13.8 % and 17 % in 2020. This means that the part of the private institutions will increase from 25 % in 2010 to 27.5 % in 2015 and 30 % in 2020.

In the public organs, a wage policy is implemented to coax the staff. To this end, the average annual salary of a "APE[314]" will rise from 3,536,000 in 2010 to 3,890,000 FCFA in 2020 as well as that of a "ACE[315]" from 1.107 million 1 262 000 FCFA. Over the same period, administrative and educational expenditure per pupil will rise from 7,457 in 2010 to 10,000 FCFA in 2020. At the end, the total current expenditures for preschool will increase from 3.7 to 8.7 billion FCFA in the period 2010-2020.

Primary Education

The primary completion rate of 64 % since 2006 will be around 73 % in 2015 to finally reach 100 % in 2020. Constraints are, so far, huge. Constraints include the decrease in the percentage of repeaters from 13 % in 2010 to 10 % in 2020 accompanied by an increase in total spending per student from 7 264 to 10 000 FCFA. The 10 % increase in wages for the "APE" and 14 % for "ACE" is maintained and increase the whole payroll from 56 billion FCFA in 2010 to 71 billion FCFA in 2020. Only for the Primary sector, from 2010 to 2020, the total current spending goes from 77 to 102 billion FCFA.

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313 PDDS Present Phase 3; Ministries in charge of Education, Cotonou, Febr. 2013, pp. 58-62.
314 APE: Permanent Agent of State.
315 ACE: Contract Agent of State.

General Secondary Education of first Cycle

Article 14 of the framework law on Education stipulates that primary education and the first cycle of secondary education are considered as basic education. The access in 6th Form will increase from 60.8 % in 2010 to 70 % in 2020; an increase of nearly 10 percent point from 508,751 in 2010 to 736,491 students in 2020. To meet this growing demand, subsidized[316] partnership between the public and private sectors will intensify the supply of diversification. The private share will increase from 14.5 % in 2010 to 25 % in 2020. Regarding internal quality and efficiency; the number of students per class and teacher will decrease from 52.4 in 2010 to 50 in 2020. Payroll will annually increase about 1.6 billion FCFA. It was at 38 billion in the past. The total expenditure per student grow from 5 564 to 10 000 FCFA and total current expenditures of 29 billion in 2010 will reach 51 billion FCFA in 2020.

General Secondary Education of second Cycle

It is very important to establish a symmetrical transfer between general secondary and techno-professional education; in the aim to regulate the flow of students and to insure professional integration of young people. Thus, the transition rate between the first and second cycle of general secondary will increase from 138,940 in 2010 to 171,489 in 2020. The partnership between the public and private sectors will increase the subsidized share from 21.7 % in 2010 to 30 % in 2020. In terms of internal efficiency, the percentage of repeaters will decrease of 7.5 percentage point from 17.5 % to 10 % and vacation of teachers' 23.5 percent point from 63.5 % to 40 % over the period 2010 to 2020. Total expenditure per pupil grows from 10 595 to 15 000 FCFA and total current expenditure of 13 billion in 2010 to 21 billion FCFA in 2020.

Technical Education

Enrolment in technical education will increase from 41,870 in 2010 to 72,638 students in 2020. Seen that an average of 75 % of the enroled will be in private schools, subsidized partnership will be stronger, especially with the aim to stronger involve the private in the supply of industrial and agricultural training and also to reduce geographic disparities and gender discrimination added to

[316] Of course, the financing terms will be explained in the PDDSE insofar as all private school students will not be funded. Those students to be funded must be enroled in public and who cannot access to the secondary audience.

one more week from 31 to 32 weeks of learning time. Management expenses pass insensibly in 10 years from 306 112 in 2010 to 375 000 FCFA in 2020, whereas the total current expenditures will double and grow from 5,6 billion in 2010 to 12,9 in 2020.

Vocational/Professional Training

The handcraft centers receive the "dropouts from school" who are trained for the CQM (Certificat de Qualification aux Métiers/*Qualification Certificate of Handcraft*) and vocational training centers receive the leavers of CM2 class up to third Form in the First Cycle under contract in apprenticeship by master craftsmen; they are trained in dual-system and must pass at the end the CQP (Certificat de Qualification Professionnelle/*Certificate of Professional Qualification*). The learning potential of handcraft centers (CM) will focus the training of primary school leavers and will extend it to the junior high school. In the future, the CM will also enhance the action of vocational training centers (CFP). The share of the in private enroled is 80 % with student grants of 60 000 FCFA for CQM and 100.000 FCFA for CQP is thus strengthen due to the partnership between public and private. The number of students will increase from 960 to more than 8,000 students, so an increase in payroll from 57 to 584 million CFA francs and total current expenditures of 271 million in 2010 to over 6 billion CFA francs in 2020.

Initial Teacher Training

Benin currently has 6 ENI (National School of Teachers) to train teachers of preschool and elementary/Primary school. Using in the future 100 % of its capacity, an average of 1,500 student teachers per year can be formed in a two-years training. Outgoing receives a CEAP (for those who have the BEPC) and CAP (for those with BAC-Diploma). The number of student teachers per lector will decrease from 75.9 in 2010 to 70 in 2020. At the same time, there are private ENI. Benin government is obliged to establish a framework for monitoring and supervision of schools, so then to ensure national equity in the quality of supply. Training in the ENI is entitled with scholarship concerning 45 % of the absolvent of first-year and 62.3 % in the second year for 2010. In the aim to make this training more equitable for all, the amount of scholarships in 2020 will represent a total of 784 in 2020 against 594 million in 2010. The total of

current expenditure will increase from 1.3 billion in 2010 to 1,4 billion FCFA in 2020.

Higher Education

The student population will increase from 100,000 in 2010 to 180,000 in 2015 and 233,000 in 2020. This means per 100,000 inhabitants, 1,158 students in 2010 to 2,000 in 2020. The private sector will welcome an increase from 26.9 % in 2010 to 35 % in 2020.

Contrary to the policy of conversion of EPA/APE and ACE/ACE teachers, the number of part-time teachers and local contractors in the public will double from 934 to 1 986. The scholarships that are garanted in 2010 to 30 % of the students will fall to 20 % in 2020 and will be strictly targeted towards vulnerable students and promising studies. The amount of the scholarship is around 330,000 CFA francs/year/student equal a total of 8 billion FCFA. For all expenses, total current expenditure will increase from 26.5 in 2010 to nearly 40 billion CFA francs in 2020.

Literacy

In 2020, the number of literate people will have tripled; passing the registered 37,622 in 2010 to 97,582 in 2020, an annual increase of 10 %. The unit cost of training by enroled increase from 13,715 in 2010 to 40,000 FCFA in 2015 and will drive the total current expenditure for literacy from 516 million in 2010 to 3.9 billion FCFA in 2020, an increase of 800 %.

3.3.5.2 Unit Costs based on the Aggregate Values

The confrontation of resource mobilization and school enrolment during the same year yields the annual unit cost by level or type of education and in addition, the obtained value separately for public and private. The use is merely to calculate the unit operating costs. In the analysis of unit costs by level of education 1996 to 2010 we see in table 9[317] that significant improvements have occurred in secondary and technical as the contrary are stated in the cost of maternal and higher in value of GDP. Indeed, for the Kindergarten, the costs fall in 2006 from 23.2 % of GDP/capita to 13.8 % in 2010. At the higher edu-

[317] See "PDDSE: Plan Décennal De Développement Du Secteur De l'Éducation Actualisé Phase 3/2013-2015", Cotonou, Februar 2013, p. 24, table 6.

cation level, the unit cost falls from 305.5 % in 1996 to 93 % of GDP in 2010. While the rest of the educational levels (primary, general secondary, technical, and literacy), there is an increase in the allocated percentage of GDP.

Moreover, we must keep in view the contribution of households in the expenditure on education. These expenses were 35 % in 2006 with a higher share than the state for secondary education. Because of the general free primary level plus secondary for the girls, added to the demographic pressure, the secondary education has greatly deteriorated. All qualitative corrections go through the enrolment in private institutions, the various costs of private lessons and equipment. If already at the primary level, parental involvement is 25 % of total expenditure, this causes alarm effect for the State of the need to improve the supply and quality of education.

Table 9: Evolution of Public Unit Costs of Education, Benin, 1996, 2006 and 2010

	Thousands of constant CFA (Base 2010)			**% of GDP per habitant**		
	2006	2010	Gap in %	1996	2006	2010
Maternal/ Nursery	80,6	51,1	-36,5	--	23,2	13,8
Primary	45,4	49,8	9,7	11,8	13,1	13,5
General Secondary I	37,8	64,8	71,4	--	10,9	--
General Secondary II	110,7	130,5	17,9	22,6	31,9	35,3
Technical Secondary I	397,3	771,9	94,3	--	114,4	208,6
Technical Secondary II	433,8	513,9	18,5	84,6	124,9	138,9
High education in Benin	463,6	343,6	25,9	305,2	133,5	92,9
High Education abroad	9366,5	--	--	--	--	--

Source: Resen quoted in PDDSE.

3.3.5.3 The Unit Costs in GDP by Level of Education and Household

The approach to public unit costs[318] of education levels in 1996, 2006 and 2010 shows impressive results. From 1996 to 2010, at the kindergarten and higher education, there is a steady decline in unit costs from 23.2 % of GDP/capita to

[318] Source: RESEN and table 6 on p. 24 of PDDS Actualisée, Phase 3; Ministères en Charge de l'Éducation, Cotonou Février 2013.

13.8 % in 2010. At high level, it rose from 305 5 % of GDP in 1996 to 93 % in 2010. It increased from 11.8 % to 13.5 % of GDP/capita for primary education, then respectively from 10.9 % to 17.5 % and 31.9 and 35.3 of GDP in general secondary 1st cycle & 2nd cycle. Growth is greater at secondary technical 1st and 2nd cycle (respectively 114.4 % to 208.6 % and 124.9 % to 138.9 % of GDP/capita). Already in 2006, the household contribution to national education expenditure on secondary education for example is estimated to exceed that of the state, consequent to the sharp increase of enrolment in private schools with all other costs. It is a warning alarm of parents who reminds the State of Benin the need to improve the supply and quality of education.

3.3.5.4 Operating Unit Costs and Factors Affecting the Costs

We will use this new framework of micro estimation for an operating unit cost approach where we place ourselves at the outset of the teaching conditions prevailing in the schools or classes. The symbolic formulation[319] below shows how a function like following can happen, by gradual decomposition:

B = MSE + MSNE + PEDFONC + SOC
B = SMOYENS. NENS + SMOYNENS. NONENS + PEDFONC + MBOURS. NBOURS
CU = B/NEL =SMOYENS . NENS/NEL + SMOYNENS/NEL + PEDFONCU + MBOURS. NBOURS/NEL
CU = SMOYENS. 1/REM + SMOYNENS. 1/RENE + PEDFONCU + MBOURS. NBOURS/NEL

In these expressions:

B:	Budget
MSE:	Teacher salarial mass
MSNE:	Non-Teachers salarial mass
PEDFONC:	Mass of Teaching and Operating Expenses
SOC:	Mass of social spending
SMOYENS:	Average teacher salary
NENS:	Number of Teachers
SMOYNENS:	Average salary of non-teachers
NONENS:	Number of non-teachers
MBOURS:	Amount of grant/Scolarship
NBOURS:	Number of granted students/Scholars
CU:	Unit cost (per pupil)
NEL:	Number of Students
REM:	Pupil-teacher ratio
RENE:	Ratio Pupil-Non-Teacher

[319] See Function formulation and decomposition by the World Bank January 2002, p. 59.

PEDFONCU: Educational and unitary function expenditure

3.3.6 Facilities by Level and Type of Education

With its chronic lack of resources, the government of Benin allocates a tiny part of its resource to MOE. The latter is confronted with the challenge to provide adequate educational services. Over the infrastructure and other physical objects (bank, desk, board, chair, etc.), support material such as libraries, laboratories, writing, teaching, and a well-designed curriculum etc. are largely under supplied. Added to these obstacles, we noted the lack of transport, communication, electricity, sanitary, drinking water-infrastructure. These in turn are at the source of drop out, absenteeism, tardiness, discomfort, repeat, for the children, particularly in rural areas and worsen in the North part of Benin. The great challenge to provide basic education for all is still ahead.

The actual state of education can be measured with: Apparent Admission Rate (AAR), Net Admission Rate (NAR), School Life Expectancy (SLE), Transition Rate (TR), and Net Enrolment Ratio (NER).

In the current period from 1992 to 1999, although private education is usually rather small in the Beninese education system, its numbers still represent 41 % of the total in preschool, 11 % in primary and general secondary education (10 % in undergraduate and 14 % in the second), 68 % in technical and vocational education and 20 % in higher education.

During the decade from 2001 to 2011[320], the fee free basic education, beginning with the Children's Garden, strengthening infrastructure, grants and equipment, sensitization of communities has created an exponential participation so that starting from 18,621 children in 2001, the numbers have soared to 109,449 in 2011.

In the same line but at a lower level, enrolment in primary schools have experienced a modest increase of about 5.8 % over this period. Schooling is then increased from about 1.05 million students in 2000-01 to 1.85 million students in 2010-11. This result is despite the free education at the primary level.

At the secondary level general over the same period, the average annual rate of increase in the public sector was 10.5 % in the first cycle and 16.3 % in the

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[320] See DPP des différents ministères en charge de l'éducation (MEMP, MESFTPRIJ, MESRS, MCAAT) et extrait RESEN 2007-11.

second cycle of the cited period. In private, the results are approximately 3 percentage points higher. In general, this is a high increase.

Table 10: Enrolment by Level of Education and Status, 2000-2001 to 2010-2014

Level of Education	2000-2001	2003-2004	2005-2006	2008-2009	2010-2011
Maternal/Nursery	**18621**	**22022**	**31200**	**74033**	**109449**
Public	13786	16116	20212	58409	81001
Private	4835	5906	10988	15624	28448
% du total	26.0 %	26.8 %	35.2 %	21.1 %	26.0 %
Primary	**1054927**	**1318596**	**1356818**	**1719390**	**1850658**
Public	970990	1177016	1178501	1519480	1580064
Private	83937	141580	178317	199910	270594
% du total	8.0 %	10.7 %	13.1 %	11.6 %	14.6 %
Gral Secondary I	**195966**	**264506**	**360258**	**475557**	**530767**
Public	171326	220234	316608	410754	446432
Private	24640	44272	43650	64803	84335
% du total	12.6 %	16.7 %	12.1 %	13.6 %	15.9 %
Gral Secondary II	**37211**	**54379**	**73592**	**111296**	**168334**
Public	31163	45570	60805	86996	131053
Private	6048	8809	12787	24300	37281
% du total	16.3 %	16.2 %	16.2 %	21.8 %	22.1 %
Secondary I & II	**233177**	**318885**	**433850**	**586853**	**699101**
Public	202489	265804	377413	497750	577485
Private	30688	53081	56437	89103	121616
% du total	13.16 %	16.65 %	13.01 %	15.18 %	17.40 %
Tec. Secondary I	**7967**	**11091**	**10032**	**9261**	**11241**
Public	3434	3942	3468	2370	2330
Private	4533	7149	6564	6891	8911
% du total	56.9 %	64.5 %	65.4 %	74.4 %	79.3%
Tec. Secondary II	**13604**	**19813**	**18725**	**21043**	**42973**
Public	5864	7042	6473	5385	8908
Private	7740	12771	12252	15658	34065
% du total	56.9 %	64.5 %	65.4 %	74.4 %	79.3 %
Tec. Sec I & II	**21571**	**30904**	**28757**	**30305**	**54215**
Public	9298	10984	9941	7755	11239
Private	12273	19920	18816	22550	42976
% du total	56.9 %	64.5 %	65.4 %	74.4 %	79.3 %

Source: DPP of (MEMP, MESFTPRIJ, MESRS, MCAAT) and extract of Resen 2007-11 and adjusted by author.

With a strong private sector participation in technical education at both levels, we get growth rate of 3.5 % in the first cycle and 12.2 % in the second cycle which is stable from the 2003-04 school years with small fluctuations in 2009-10 and 2010-11. A serious mistake is underestimating the values of the technical education in Benin. The increase of 7.7 % on average per year of vocational training mainly due to the growth in the private sector. Serious efforts of the Government for the development of this training are not enough. This training (learning and training) is very important because it allows the disadvantaged to have perspectives, development of skills or retraining.

The student body at the higher level increased from 31,299 students in 2000-01 to 95,629 students in 2010-11, an average annual growth rate of 11.8 %. This is the translation of the pressure from the lower levels on the top that cannot control these flows so that cannot afford to offer a quality education.

Indeed, the adult literacy[321] rate is 57.9 % in urban areas and 38.5 % in rural areas. Similarly, the literacy rate for young people aged 15 to 24 is 78.2 % in urban areas and 55.6 % in rural areas. This rate is higher than the adult rate. In comparison, the difference is clear between men and women. Men are more literate than women.

3.4 Efficiency

Consistency[322] between quantitative and qualitative dimension of education in Benin leads to the assumption that children accessing school must especially reach the end of the started education with the required knowledge and basic skills.

It would be a useless issue to speak in terms of quantity of the system. But in this case, quality is the most important value. About the quality of educational services, three aspects will be discussed:

a) reach the end of the started education in time limit,

b) acquire the required basic knowledge,

c) system efficiency and its ratio quality/cost.

3.4.1 Efficient Use of Public Resource

The efficiency is generally defined as the ability of countries to obtain maximum positive results from the mobilized social tangible public resources. This can be done over:

a) An indicator of the volume of public resources mobilized and

b) an aggregate indicators of the overall coverage of the system.

These two statistic data can be checked "face to face" over two complementary ways. This points will be worked out and deepen in the following paragraphs.

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321 See "PDDSE: Plan Décennal De Développement Du Secteur De l'Éducation Actualisé Phase 3/2013-2015", Cotonou, februar 2013, p. 27, table 8.

322 The Objective Nr. 6 of the, "Education for All" clearly states to improve the quality of education and ensuring excellence in order to achieve recognized learning level and measurable results, including with respect to the reading, writing, numeracy and skills in everyday life.

3.4.2 Achievements and Challenges

In this paragraph, we will address the issue of quality and of the use of GERs. We will also examine effective enrolments, using profiles showing the chance that an individual in one age group will proceed to subsequent grades of the various levels of the education system.

Within the context of Benin's 10-year program for education development, analysis of enrolments, based on **G**ross **E**nrolment **R**atios (GER)[323], demonstrate the progress made at all levels of the education system.

At the primary school level, the GER was around 50 % in 1970 and 68 % in 1980. Progress was less marked during the *Marxism-Leninism of the* 1980s. The GER was 71 % in 1992, but over the past decade, the GER is estimated to be 81 % for 1999.

At the secondary school level, progress has also been made: the secondary GER rose from 12 % in 1992 to 19 % in 1999, respectively 26 % at the lower secondary level and 8 % at the upper secondary level.

At the tertiary education level, there were 200 students per 100,000 inhabitants in 1992 as compared to 350 in 1999, 326 in 2000-01 and 659 in 2010-11.

These positive trends in quantitative system coverage are due both to progress in the public education sector and to a very marked development of private sector institutions at all levels of the system, from preschool to university. The role played by the private sector should be seen as an indicator of the constraints (in terms of quantity and quality) of education services in the public sector, but also of the fact that a certain sector of the population is able to pay for education services since private schools receive no state subsidies.

There is a large place of improvement in the whole education sector of Benin, the reality is somewhat harsher. Although 87 % of a particular age group have access to CI (the first year of primary school), only 40 % will go up to CM2, and less than 10 % reach the final year. The level of retention at the primary school thus turns out to be very poor.

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[323] See "Le système éducatif béninois, Performance et espaces d'amélioration pour la politique éducative", Série Développement Humain de la Région Afrique, Document de travail du Département du développement humain, Région Afrique, Banque mondiale, 2002.

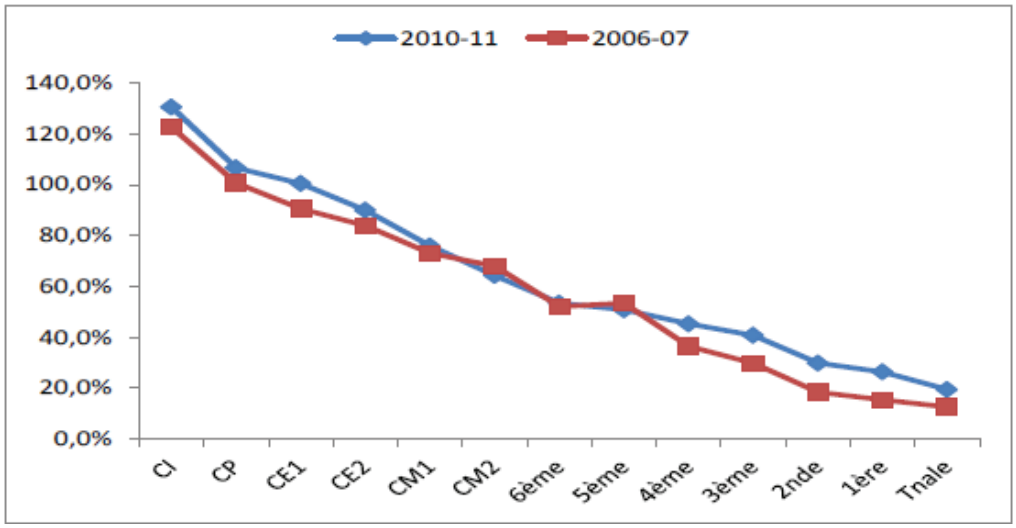
Table 11: Completion Rates for Benin and Average Comparator Countries[324]

	Primary	Secondary I	Secondary II
2006-2007	68.0 %	29.8 %	12.6 %
2010-2011	64.3 %	40.8 %	19.5 %
Average of Africa comparison countries	***64.4 %***	***32.8 %***	***16.6 %***

Source: Pôle de Dakar quoted by PDDSE.

In 2011, the only level of education which managed good rate of completion is the secondary level unlike the primary, which falls from 68 % in 2007 to 64.3 % in 2011. Every failure in its child's schooling is a huge loss in time, capital and other resources. It is therefore very important to keep children at school. In addition, there are problems with the quality of the primary education between public schools and private schools where respectively 28 % and 43 % of students reach the minimum level of skills. We need to remember multiple reasons that are at the source of this deterioration in public schools: strikes, the absenteeism, infrastructure, resources, materials and overcrowding of classes, for example.

Graphic 2: Efficiency of Benin Educational System[325]



Source: Resen 2011-2012 out of the data of DPP, MEMP, MESFTPRIJ and of INSAE.

The quality is not much better in the public secondary education. The worst for this level is the gradual extinction, critical and reliable scientific disciplines

[324] See "PDDSE: Plan Décennal De Développement Du Secteur De l'Éducation Actualisé Phase 3/2013-2015", Cotonou, februar 2013, p. 54, table 21.

[325] See ibid., p. 29, Graphic 1.

that mortgage the future and scientific competitiveness of Benin and the acquisition of expertise with high added value.

Changes in enrolment and achievement at each level are the first indicators of the dynamics of the education system. Consider schooling by itself, it is important to compare the enrolment of school-age populations: the gross enrolment ratio (GER), higher education, technical education and vocational training that consider the number of students per 100 000 inhabitants. Another method is to calculate the number of technical and vocational education students per 100 students of general secondary education.

GER (gross enrolment ratio) of nursery/maternal education has grown over 500 % from 2001 to 2011. However, this rate is only 11.6 % of school age.

The GER in primary education increased from 84.5 % in 2000-01 to 101 in 2006-07 % and of 114.5 % in 2010-11. Changes in the workforce was higher than the population growth of the school-age population and the system can accommodate all school age at this level. With an increase of 200 % (30.7 % in 2000-01 to 62.9 % in 2010-11) in the first cycle and 300 % (from 9.6 % to 32.6 %) in the second cycle, secondary level covers only a small part of the school-age contingent at this level. Regarding technical education, the number of students increased from 326 students to 100 000 in 2000-01 to 659 students per 100 000 inhabitants in 2010-11.

In higher education, coverage increased to 480 students per 100 000 in 2000-01 to 1080 students per 100 000 inhabitants in 2010-11. The only problem that we cannot solve here is that of the outgoing employability.

This graphic 3[326] below, which illustrates clearly the poor rate of retention within primary schools, is nearby valid at other level of the education system. Combining the disparities in access and retention at the primary[327] school level reveals considerable differences between the different groups. The proportion of a particular age group finishing primary school ranges from 70 % among boys living in urban areas to a mere 14 % among girls from rural areas (47 % among girls from urban areas and 39 percent among boys from rural areas). The magnitude of the work that remains to be done and the desired objective emerge clearly when it is borne in mind that those who have not completed at

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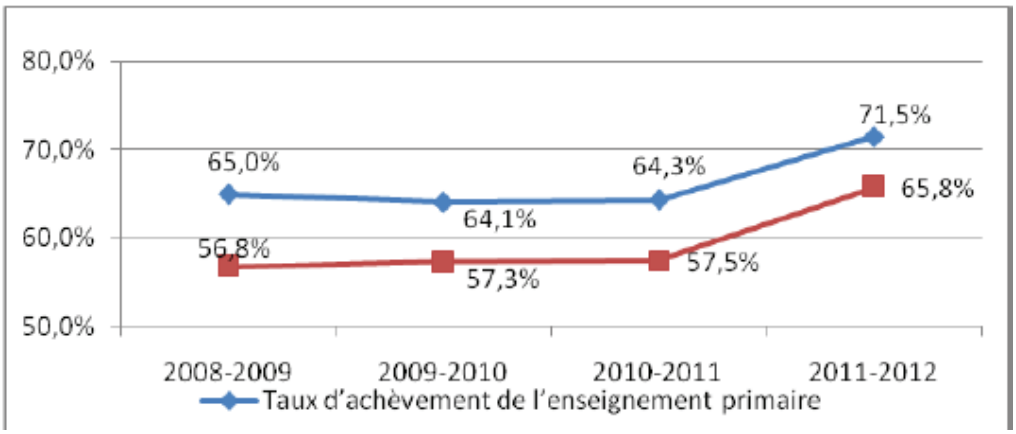
[326] See "PDDSE: Plan Décennal De Développement Du Secteur De l'Éducation Actualisé Phase 3/2013-2015", Cotonou, februar 2013, p. 31.

[327] Already in 2002.

least five years of education of a reasonable standard are quite likely to grow up into illiterate adults.

Graphic 3: Rate of Achievement at Primary School



Source: Statistical Yearbooks, DPP/MEMP.

In view of these challenges, the next step is clearly to consider what strategies might be adopted. Analysis conducted within this perspective indicates two possible solutions:

a) 24 % of students are enroled in schools that do not offer them the option to continue their education locally up to the final year of primary school.

A service-driven approach might answer this need (possible construction of classrooms and recruitment of teachers if necessary; explore the possibilities of multi-grade classes);

b) It must be emphasized that the high grade repetition rate partly explains why students become discouraged. It is estimated that if the repetition rate were to be reduced from 25 percent to 10 %, the retention rate might rise by 12 % (the impact would be even greater among girls). These two points are important, and are certainly worthy of study. And yet, although they are classic supply-side solutions, they alone will not suffice.

Estimates[328] in the report indicate that the retention rate would only climb to around 64 percent – which is clearly far better than the present 45 percent, but still far from sufficient. Although it does not provide detailed figures, the report suggests two possible solutions.

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328 See World Bank, in "Série Développement Humain de la region Afrique", document de travail, Le système éducdtif bèninois, Performdnce et espaces d' amelioration pour une politique éducdtive, January 2002, Washington, DC, 16th November 2016 at 3:15 PM under http://documents.worldbank.org/curated/en/495671468743355084/text/multi0page.txt

– The first suggestion is to charge tuition fees. This is an extremely common practice, which can lead to a fall in demand for enrolment. In this context, careful consideration should be given to the impact of the recent abolition of fees in the case of girls and the provision of compensation for loss of school earnings (a measure taken under the Heavily Indebted Poor Countries HIPC initiative at the start of the present school year).

– The second suggestion is that there might be a way to work more closely with local communities to identify how schools might be modified at the local level, thus making it possible to respect the imperatives of a standardized national education system while simultaneously responding to demands made by students' families. The education system is still under population growth pressure. The infrastructure and the quality at first cannot follow adequately this growth. Let us have a look at table 12 below:

Table 12: Population Projections for Specified Age Group from 2000 to 2015

	YR2000	YR2005	YR2006	YR2007	YR2008	YR2009	YR2010	YR2015
Projected Population (Male + Female, Thousands)								
Total	7,227	8,490	8,760	9,033	9,309	9,589	9,872	11,331
Primary school entry age, 6	223	253	259	266	273	280	287	324
Primary school age, 6-11	1,238	1,415	1,452	1,490	1,528	1,568	1,609	1,828
Secondary school age, 12-18	1,197	1,377	1,415	1,455	1,496	1,537	1,578	1,790
Projected Population (Female, Thousands)								
Total	3,611	4,217	4,346	4,478	4,612	4,748	4,886	5,602
Primary school entry age, 6	110	124	127	131	134	138	141	159
Primary school age, 6-11	609	695	713	732	751	770	790	897
Secondary school age, 12-18	590	677	696	715	735	755	775	880
Projected Population as % of Total								
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Primary school entry age, 6	3.1	3.0	3.0	2.9	2.9	2.9	2.9	2.9
Primary school age, 6-11	17.1	16.7	16.6	16.5	16.4	16.3	16.3	16.1
Secondary school age, 12-18	16.6	16.2	16.2	16.1	16.1	16.0	16.0	15.8
Projected Population as % of Total Population in 2000								
Total	100.0	117.5	121.2	125.0	128.8	132.7	136.6	156.8
Primary school entry age, 6	100.0	113.3	116.3	119.3	122.5	125.7	129.0	145.5
Primary school age, 6-11	100.0	114.3	117.3	120.3	123.4	126.6	130.0	147.7
Secondary school age, 12-18	100.0	115.1	118.3	121.6	125.0	128.4	131.9	149.6

Source: World Bank Country Study Report 2009-2010.

At this speed and rhythm, Benin is going to take a huge challenge. From 2000, Benin has to increase for nearby 50 % all its educational infrastructure and teaching staff for 2015.

The enrolment of female will be at the same time at 55.1 %, whereas the gross enrolment will increase by 56.78 % in 2015. The remarks we have made in the estimate expenses on table 6 are actual more than ever. Without an external aid and the active participation of the private educational sector, the pupils-teacher ratio will rise to nearby 75/1 at the primary level. It means for the national educational system an acute lack of efficiency and quality. We can take as example the flow of student by completing their cycle in time limit. Now, we are in 2015. In the meantime, what happens to the system?

In primary education, the average rate of completion was 64 % between 2006 and 2011, thanks the efforts of all stakeholders[329], this rate grew between 2011 and 2012, from 64.3 % to 71.5 % consequently to the following measures introduced since 2008:

- The gradual elimination of class-repetition within the sub-cycles;
- The absolute recruitment of qualified teachers;
- The integration of community teachers and their qualifications;
- The implementation of adjustment measures and support material for teaching/learning process;
- The gradual establishment of school canteens in poor areas.

Measures that must be strengthened to increase the internal efficiency of the system. Moreover, we can make the following observations on the level and dynamics of repetitions of classes (Form); on the loss related to poor performance in managing student flow. Anyway, the policy of reducing repetition had a heavy impact on the upper levels. Indeed, in 2004, this policy has dealt only with the CI-CP Classes. Repetition is permitted only in exceptional cases; this has resulted in a kind of "snowball effect" on other levels. The proportion of repeaters of 24 % in 2002-03 fell to 8 % in 2005-06 and rose to 10 % in 2006-07 up to 16 % in 2010-11 for all primary classes, then finally fall down to 11.6 % in 2011-2012 for the whole cycle.

At the secondary education level, at both 1st and 2nd cycle, the proportion of repeaters has increased from 20.1 % in 2006-07 to 23.9 % in 2010-11 in the

[329] Government, technical and financial partners and others involved in education.

first cycle and 17.7 % in 2006-07 to 21.9 % in 2010-11 in the 2nd cycle with a concentration in exams classes[330].

3.4.3 Internal Efficiency and Quality of School

3.4.3.1 The Efficiency of the System and its Value/Cost[331]

In *primary education*, the frequency of repetition and drop in 2010-11, leads to an overall coefficient of internal efficiency of 52.8 % so then, about 47.2 % of mobilized resources is wasted. Since 2006-07, the waste is estimated at about 32.2 %. The loss of resources related to dropout is 37.1 %; and 16 % for repetition. However, estimates for 2011-2012 resulting to completion have a rate of 71.5 % against 64.3 % in 2010-2011.

Indeed, despite the measures taken in education policy, the data show a discontinuity and contra-performance in national regions with high dropout rates.

The percentage of new entrants in situations of discontinuity deteriorated between 2008 and 2011 (3 % in 2008 and 6 % in 2011).

In *general secondary education* at the undergraduate level in 2010-11, nearly 30 % of the resources for this cycle are wasted against 23 % in 2006-07. The overall internal efficiency ratio was 75 % (25 % of wasted resources) inclusive repetition and 92 % (only 8 % lost of resources) considering only dropouts.

In *general secondary education at the second cycle*, the loss of resources increases from 24.1 % in 2006-07 to 31 % in 2010-11. Measures are absolutely necessary to counteract the repetition and dropout.

3.4.3.2 The Quality of Education

This could be obtained by opposing the repetition/drop results to that based on the level of teacher training, to the number of students per classroom, to the availability of textbooks and teaching guides, to the quality of learning and benefits to examinations.

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330 In grades third and final year of high schools. See table 10: Internal efficiency through the flow of students for the school years 2006-07 and 2010-11, primary and general secondary education, Source: Resen 2011-2012 using data from the DPP and MEMP MESFTPRIJ as also data from RGPS 2011; see also PDDS, Phase 3; Ministries in charge of Education, Cotonou in February 2013, p. 31.

331 See also the graphic 3: New incoming students experiencing educational discontinuity in PDDS Present Phase 3; Ministries in charge of Education, Cotonou in February 2013, pp. 32-33.

Teacher qualifications

Teacher education positively influences student intellectual acquisition, when these teachers are holders of the Baccalaureate. In recent years, although insufficient with very negative effects on the quality of the system, the stock of skilled teachers increased from 45 to 50 % for primary and 13-27 % for secondary and remains a very masculine teaching sector at the disadvantage of retention of girls in the system.

Initial training

was in many ways short and intensive. Several functional training and adequate for need have been initiated. For the school year 2011-2012, 9979 Community teachers for primary school were trained on the job over a period of three years and they have taken examination of APEC in October 2011. 80 % (82 % of all candidates at **CEAP**) succeeded; about 7971 qualified teachers. The training for local contractors in secondary level, those converted into ACE, started with 11,278 teachers. 1855 masters 'alphabetisors' were trained within 10 days to start the so called "faire-faire" program in the field of literacy.

Continuing education for primary school teachers

Ongoing/continuing training programs held at the school district and are primarily based on the analysis of real situations in classes. The supervisory[332] committee visits the class, identified ten themes that in turn, are planned on a whole school year and place in educational units whose unit gathers 4-5 schools. Training in which the teacher is put in a position of learning through a sequence of class he has to teach.

46,196 primary school teachers were trained in the implementation of corrective actions from CE1 to CM2 and 35 primary school inspectors attended an immersion course, 1593 animators and 1213 educators of kindergarten attended training session of 10 days to widespread program of educational awakening.

Continuing education for secondary school teachers

Teachers[333] all categories confused, per discipline/specialty and for two hours a week, participate weekly in pedagogical animation. The supervisory committee established in some subjects a list of themes for the National Year.

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[332] The monitoring team behalf the heads of Educational Units, school counsellors and school district inspectors.

[333] See graphic 4: Evolution of the percentage of qualified teachers in Primary and Secondary; in PDDS Present in Phase 3; p. 34.

In comparison, the number[334] of teachers at National Universities of Benin evolved increases from 765 in 2008 to 934 in 2010. The number of full professor rose from 125 in 1999 to 257 in 2006-2007. 84 % are over 54 years and will retire before 2015.

Programs and textbooks

The program evaluations, remediation, teacher's training focuses on the science and technological education, social education, art education and physical education in grades CE1 to CM2. The textbooks for the lower classes CI-CP are ready and are in progress for the CM1-CM2. The same applies to the five levels of TVET.

Supervision of students

It has until then disastrous results. In 2010, the best average per class was 44.2. In 2011, the average rate per class rises to 46.4 students per teacher in the Primary. On the other side, in 2010, the rate estimated at 52.4 for lower secondary general will be 51.2 students in 2015 to the 2nd Cycle in 2010 from 46.6 to 45.8 in 2015. Student/teacher ratio goes up to 75 students per teacher while the target set up for 2011 was 48 students per teacher. The steady increase in the number of students in relation to the recruitment capacity of the state is not sufficient to meet the needs and thus affect/eroded clearly the quality of supervision and teaching.

After a noticeable degradation in the quality of literacy from 2005 to 2007, a significant improvement in the ratio pupils/teacher had got closer to a stabilization and even a 25 pupils per classrooms/teacher had occurred over the period 2007-2010.

3.4.3.3 The Quality of Learning

Test, scores and learning assessment

In 2010 the success rates were: CEP 65 %, BEPC 45 % and BAC 35 % with no difference in gender. In May 2011, the PASEC[335] student evaluation of the CP and CM1 covered about 200 primary schools nearly 3,000 students in CP and

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[334] See graphic 5 Evolution of the percentage of teachers at level A at the universities in 2008-2009; in PDDS Present Phase 3; and DPP/MESRS, p. 35.

[335] Details on the evaluation methodology (sampling, test content, coding and correcting student notebooks, etc.) can be found in the final report of the evaluation. See report presenting the results of the evaluation on student achievement of CP and CM1 in public and private elementary schools in Benin, MEMP, April 2012.

3,000 CM1. Students were randomly selected for French and mathematics test[336]. The average level of success in tests is low and around 40 % CP and 32 % CM1, while the minimum required is 50 % for both levels.

However, this difference does not reflect a general weakness but hides great differences between student's acquisitions at each level. Especially since test results illustrate deviations of 20.6 % CP and 15.3 % for the CM1. In fact, we find that only 29.7 % of CP students and 13.3 % of students in CM1 reached the minimum level of competence for these classes. These results indicate a serious problem of equity within the education system. It is quite possible to resolve the problem by reviewing the whole resources, real-time of learning, applied skills and competence of the teacher.

Retention of literacy in adulthood

The level of adult literacy is linked to the quality of primary education. The primary must give youth a solid knowledge that will stay into adulthood. The higher the knowledge, the retention of reading, counting and writing is, the better was the quality of basic learning.

In 2010, the information collected from the survey EMICOV[337] allow to put the light on the adult literacy retention in Benin. However, there is an investigation in which the retention of reading and writing is declarative. The distribution of adults 22-44 years[338] as they can read and write in French is very significant. Basic illiterate remains illiterate around 93.9 % in adulthood, nevertheless, 4.1 % declare that they are more or less literate. On the other side, for those who were at school, nearly 89 % can read and write.

The fact remains that 11 % in adulthood have a miserable result. The higher the class completed is and the higher the number of adequate years, the higher the chance to read and write. With more than 3 years' school attendance, the proportion of literates is under <50 %; therefore, financial education efforts are futile for the large part. But with 6 years, the proportion is >90 %[339].

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336 Data on national assessment of student achievement of CP and CM, MEMP.

337 See table 11: Being literate adults 22-44 years by school attendance during their youth, EMICOV 2010 in PDDS, Phase 3; from Framework for performance monitoring of Resen 2007-2011, p. 38.

338 The analysis is made on the age group of 22-44 years to assess the irreversibility of literacy.

339 This amount is significantly higher than that observed in the EDS-EMICOV 2006 and exploited in the preceding Resen. The gap is nearly 30 percentage points between the two surveys and can be put on the assets of the declarative nature of the measure of retention

The results of 100 % were achieved with only 8 years of schooling and the attendance in a class higher[340] than the primary education. Age interval of 22-44[341] years brings a stable and similar result regardless of the number of years of education.

In addition, the sustainability of literacy is higher by men. Probability to remain literate is 50 % for four years of validated education/attendance, 63 % for 5 years, 75 % for 6 years, 91 % with 8 years, 95 % with 9 years and 97 % with 10 years of validated education. Consideration should be given to the education provision corresponding to the primary school level and 1st cycle of secondary to guarantee 100 % chance of irreversible skills of reading, writing and arithmetic.

Variability in average skills and teaching conditions

According to data from the 2009-2010 DPP/MEMP performed on more than 7,500 schools, significant differences were recorded between primary schools in the competition between neighbourhoods in town, rural and urban, from South to North in the real teaching logistical and pedagogical conditions. This concerns the quality or state of available classrooms. It shows three categories expressed by the state of the classrooms: in good condition; in poor condition; and the between both good and bad.

25 % of schools are almost unfit for education and 39 % are in good condition. For equipment, 61 % of primary schools do not have enough desks and chairs for the number of the enroled while almost all do not have an office for the director; over 50 % have no latrines in good condition and 75 % have no fence and functional canteen, very few institutions have management authority at the school. On the other side, we found in 96 % of schools' association of parents (EPA), in 89 % a board of management and in 95 % a board of teachers.

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literate. Indeed, in the EDS-EMICOV 2006, a card reading was used in the measurement of the retention of literacy, which is not the case of EMICOV 2010.

340 Based on the observed figures and estimates, one could logically accept that adult literacy in the age that is complete under the Due provided universal education at least until the end of lower secondary education. This is also true if the quality of the educational service is adequate. It shows two alternatives. The first is increased to 10 years of universal education under the terms of current quality. The second is clearly developing quality so that six years of basic schooling than sufficient to eventually lead to a very high retention rate to read as adults correctly.

341 The proportion of adults that can read (22-44 years) on a period of study in youth is a kind of declarative measure – MICS compared to a sample of African countries. See estimates from the MICS considered countries from 1998 to 2005 and survey EMICOV 2010 for Benin in the sectoral framework of monitoring performance, from Resen 2007-2011 and PDDS Actualised Phase 3; p. 40.

All these organs are necessary logistics elements but not sufficient to create a conducive learning environment.

We must also add the educational dimension. The educational organization in form of simple flow cover 81 % of primary schools, while the multigrade[342] organization is practiced in 19 % of schools, mostly in rural areas with low population density.

The system also ensures that the multigrade schools actually supply for each educational group/level minimum time required to complete the attendance. In terms of the quantitative management of students, it is noted that >25 % of primary schools have one teacher for >60 students. Furthermore, a third of schools have 1 teacher for <40 students. So then, for the same number of students we record different number of teachers', hence, some fundamentally negative implications for schooling conditions.

If in >50 % of primary schools, teachers are exclusively male; against in 12.4 %, teachers are mostly women. In nearly 50 % of Benin's primary school teachers are not qualified enough to teach. There are finally almost 11 % of schools in which all teachers hold their teaching Diploma CEAP or CAP. Concerning the status of teachers, in 2007 with measures of conversion, community teachers in nearly 20 % of schools are still not APE; there is rather a mixture of APE[343] and ACE. There are only 7 % of schools in which all teachers are APE.

The availability of textbooks often explains the gaps and differences in pupil attainment/performance between urban and rural areas, as well as between regions. In > 50 % of schools, students have <1 French textbook as also that of mathematics; while in 39 % of school children have at least one French textbook and 42 % of schools at least a math textbook in almost 2 % of schools, there is no French or mathematics manual. The results are pretty the same for the supply level of teachers.

Finally, we find[344] that the means and conditions of teaching offered to students eventually lead to different level of acquired knowledge and vary from one school or classroom to another.

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342 In this case it means that more than one level is setting in the classroom.

343 Permanent Employees of the State (APE) and Contractual Employees of the State (ACE).

344 See Data in 2009-2010 DPP/MEMP performed on more than 7,500 schools.

3.4.3.4 Internal Efficiency of Primary and Secondary Cycle

We can design classes with an average of 25, 40 or 60 students. One can choose – or reject – the grouping of students, such as multiple tuition or double shifts. We may also recruit teachers who have 9 or 12 years of general education followed by vocational training of 3 months, 1 year or 3 years. In the school building, you can opt for modern buildings with "international" quality standards or erected by communities on a traditional mode. We can still accept – or not – a high level of grade repetition in the system. The most contradictory opinions exist in the educational community and this is not easy for decision-makers and policy-designers.

About classes of multiple tuitions, the teacher must deal successively with two or three different groups of children. Each group will ultimately receive only a part-time teacher, so that the formula will hurt the knowledge acquisition of each one in the class. On the other side, although students enroled at the same level, have very different capacities, the existence of several groups in the class would then allow each student to find the group that, in each subject, best fits their personal abilities to progress, hence reducing the risk of repetition. It must be noticed that students work more, either alone or in small groups and that this work can only have positive effects on learning plan. It is therefore important to have objective empirical data. Indeed, it is the role of analysis in terms of internal efficiency to focus on what happens inside the school cycles. This analysis is done in two complementary areas:

a) A conventional manner, by observing the flow of students, repetition and dropouts;

b) by examining how various factors affect school organization on the tangible results of educational processes in place, in this case the pupil learning. On point b), only the primary level will be addressed.

The flow of students during each cycle of instruction may be characterized by a more or less continuity or fluidity. In principle it is more harmonious. Students who enter the first grade are more likely to achieve the last grade in the normal time limit set by the school authorities. Early drop during the cycle and grade repetition are thus many unwanted disturbances. Dropping out during the primary cycle, raise an important issue for future education policy.

Table 13 summarizes the impact of snags in the flow of students on performance indices, as we can estimate in the three cycles of education for the academic year 1998-99. The overall index of efficiency is defined as the ratio between:

a) The number of pupils-years actually useful (the product of the number of students entering their final year of the cycle divided by the theoretical number of years of study in the cycle) and

b) The number of pupils-years that the country must actually finance. In the absence of repetition and drop-out, this ratio would be equal to an unity, and it is even lower as repetitions are frequent and the proportion of pupils entering first grade and does not reaching the final year is high.

Table 13: Internal Efficiency Index Associated with the Flow of Students in Primary and Secondary

	Primary	Secondary	High School
Gross enrolment rate (%)	81	21	6
Retention rates during the cycle (%)	45	49	71
Average proportion of repeaters (%) – Average % of repeaters per year CI/6th Class/2cd Class CP/5th Class/1 Class CE1/4th Class/Terminal CE2/3th Class CM 1 CM 2	25 25.1 21.7 25.7 23.5 30.4 25.0	22 19.8 15.6 25.8 31.5	20 8.8 14.1 37.4
Efficiency Index (%) – Overall index – Index with only the drop-outs – Index with only the repetition	 54.1 72.0 75.1	 67.9 85.1 79.8	 74.1 89.0 83.3

Source: PDDS Present Phase 3; Ministries in charge of Education, Cotonou, Febr. 2013, table 10, p. 31.

In the primary, the simultaneous consideration of grade repetition and dropouts during the cycle, led to believe that the efficiency index does not exceed 54 %, i.e. about 45 % of public resources mobilized for primary education are actually wasted because not producing tangible results. There is no country where the index is equal to unity, but on average, the efficiency index for primary education in Francophone African countries is 61 %, 75 % in English-speaking African countries and 77 % in Asian countries with low incomes. The situation in Benin is lower than that of Francophone African countries. Progress in achieving efficiency in Benin will get through:

a) An improved retention in study;

b) a reduction in the frequency of repetition, and these two deficiencies share roughly equally the responsibility for the low level of efficiency index in Benin. In fact, the index calculated on the basis of repetition but not of abandon (75 %) is comparable to the index calculated on the basis of abandonment, but not of repetition (72 %).

Regarding the reduction in the frequency of repetition, it is clear from experience that if improvements in school quality (in themselves desirable) can only go in the right direction, we have to turn mainly our view on structural measures. In Benin, the repetition are in a large extent, both for teachers and for parents of students enroled in the habits and culture of the school (early 80s, the rates were comparable to that of today) and essentially, by imposing a context of a new organization progress will be possible.

3.4.3.5 New Structure for Effectivity

In any hypothesis, the analysis of relationships between resources and results is essential because a large proportion of educational policy is within the sphere of resources, while the justification of this policy is measured in terms of efficiency of public resources and is therefore in the sphere of the results. To this end, two types of measures are in fact possible.

The first is to impose a limit level of frequency of repetition, in each school at each district, and to attribute to the inspectors the practical implementation of the policy decided at national level. The second method, probably preferable, is to create three levels of learning within the primary (CI + CP, CE1 CE2, CM1 + CM2) and to structure on two years the content of the programs (which in the rest corresponds to reality because the contents of CE 1 and 2 or CM 1 and 2 for example, are already very close) without the possibility of repetition between the two classes of the same cycle. We provide-teachers with two evaluation instruments:

a) Formative evaluation, to help both teachers to monitor student progress during the cycle and to help and upgrade children who are behind (accusing a retard);

b) Additive evaluation used at the end of cycle, to properly regulate access to the next cycle based on relevant learning, repetition of the second class of the cycle are allowed but may also be limited in their number.

It follows that, if we set the limit at 15 % as proportion of repeaters in the second class of cycle – and if there is no repetition in the first class of the cycle – that the overall proportion of repeaters in primary education can highly decrease to around 8 %.

This type of reform[345], who has for itself a pedagogical aspect, would lead to a breakthrough in the efficiency of the system in the use of public resources allocated to primary education. Indeed, if we remember that a reduction of 25 to 8 % of the repetition rate would increase the retention of approximately 13 % (45 % to 58 %), we see that the consolidation of the impact on retention and the direct impact of repetition on the consumption of school places would be approximately 67 % of the estimated value of the efficiency index. The comparison of these 67 % to 54 % today shows the important achievement of the reform would permit in this area. In secondary education, the estimates of the efficiency index are better than in primary education: 68 % in the first cycle, 74 % in the second, but this level still requires progress in reducing the frequency of repetition (unlike the primary, repetition here have a greater impact on the efficiency index as dropouts during the cycle).

However, it is likely that to improve the fluidity of student flows to these levels of education, improvements in the quality of education cannot be neglected. There are always two ways of approaching the issue of school quality:

a) is to look at the resources deployed, with the general assumption that a school will be even better off with more resources (better trained teachers, smaller class sizes, school buildings of higher quality, more functional classes of equipment, better teaching materials and more …);

b) is to look at the results achieved by students, the average of their learning and their inter-individual differences; we will conclude that the right and better school is that where students get good levels of learning.

The two approaches may eventually converge, since it is not unthinkable that the relationship between resources and results exist. It is reasonable to assume that learning is best when the conditions of teaching are also at the best.

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345 See See "Education sector analysis methodological guidelines: Sector-wide analysis, with emphasis on primary and secondary education", UNESCO, UNICEF, Pole de Dakar, World Bank, With the financial support of: Global Partnership for Education, September, 2014, At 6:15 PM, 15th November 2016, under https://www.unicef.org/education/files/vol1eng.pdf

Nevertheless, it is also possible that any relationship between resources and results may have a nonlinear structure with decreasing marginal impact. For example, from the basic education up to tertiary, at each level, we have the same problem in the countries such as Benin: the quality of the teaching staff under budget constraints. Thus, it is clear that teacher must possess a good level of general education, but would that mean that a PhD. is needed – or a much lower level would be sufficient. Moreover, if a teacher holding a baccalaureate is possibly better for learning than a teacher holding the BEPC, it implies that we should not choose without knowing whether the improved results of his students is the extent of the additional cost involved in hiring a contractor a better level. This argument is obviously very important for countries like Benin, which are forced into difficult choices because of budget constraints. It is preferable to have, for the latter, well-designed empirical measures. It means that we prefer to measure acquisitions using standardized tests developed on the basis of the content of existing programs and a view of value-added. No data of this type is available for Benin. The only available information we can use are provided by the data from the annual survey of schools and other information on the success of the Leaving Certificate of Primary School (CEPE). This is obviously not perfect, but is nevertheless an interesting first approach.

3.4.4 Elements of External Efficiency

The internal efficiency of education is measured by the visible results of its operations while students are still in school (level of learning, school careers and disparities in these areas, and among different population groups). The external efficiency is measured by the performance of those who left the educational world, and came in their social productive adult.

At the individual level, we seek to determine whether what they have learned in school has actually well prepared them for a rewarding social and economic life. In a macro or societal perspective, the question is to what extent, quality and duration, the distribution of enrolment and final training of all members of a generation maximizes the economic and social benefits that society will withdraw from these investments on the overall volume of resources mobilized for the sector. We can therefore make a distinction on the one hand on the *so-*

cial and economic effects, and on the other hand on the *individual and collective effects.* Among the social effects we can list:

a) Health (it was observed that, on average, more educated mothers had more effective behaviors for the health of their children);

b) civic (more educated individuals better participate in the organization of collective life and make more informed policy choices);

c) the population (population growth is better controlled in the most educated societies).

The impact of education in the economic sphere can be seen in the relationship between education of the population on the one hand, employment and economic growth on the other, which are of primary importance. In addition, in both economic and social areas, these impacts can be read both at the individual level (which, more educated, can expect better returns than the one that is less) at the company (most educated societies may experience stronger economic growth and achieve better performance in health indicators).

It is obvious that the collective effects generally extend beyond the acquisition of the individuals themselves. Economists call this difference "externality."

For a better understanding of these externalities, we can take the example of an educated farmer who improves its production techniques (choice of production, use of better seeds, implementation of better techniques for soil work, proper use of fertilizers or pesticides etc.). These new techniques will usually give him a better income, but his success may also encourage its illiterate neighbors to emulate and thereby increase their own.

The benefits that society derives from the training of the first farmer will then well beyond the gains of the first farmer. Consequently, before analyzing a system of education and training in terms of external efficiency, we must seek answers to two further questions[346]:

a) How to allocate the available resources between different levels and types of education and training to maximize the benefits that the country may withdraw of its in medium-term investment in human capital?

b) Given the importance of externalities and the dual nature (private and public) of these investments, how to identify financial and institutional mecha-

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[346] See World Bank January 2002.

nisms that lead to individual behaviors in the same line with what is desirable in terms of general and social?

It is obviously important as difficult to answer so well documented in these two issues. The available data provide in this regard some very incomplete information. But even incomplete, it is important to draw out some useful considerations. However, it will certainly be necessary to provide a specific analysis of the labor market in Benin; if the Beninese want to have enough well-documented factual information for inclusion in the reflection on future educational sector of the country. It is disappointing to recognize that this is not the case for the moment in Benin.

4 Potential Winner of Education Reform: Poor vs. Rich

4.1 Early Childhood Care i.e. the Future of Human Capital

"Children are the withdrawal of adults. In the near future, they will be right back in business"[347]. It is resuming the direction that all the issues and concerns about children should/must take, although the subject is highly complex and based on the poverty of the parents and of the nation.

In the LDCs, commonly children are the neglected part of citizenship, which in turn is harmful for their physical and mental development. Children are the most vulnerable population. They are exposed to all kind of risk, malnutrition and keep away of prevention, vaccination etc. Childhood care is an investment on the future of the nation. The return on investment is the level of the population health and wealth.

Early Childhood[348] Education remains one of the most powerful levers for accelerating national program of education for all with the later important output of reducing poverty. It is the first and essential step toward achieving primary school completion for the most vulnerable and disadvantaged children.

Learning begins at the prenatal stage and keeps on going at birth. The child is exposed to broad environmental forces. Although individual children develop at their own pace and manner their abilities, all children progress through an

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[347] Field research in Cotonou/BENIN biggest market, a commentary of an old analphabet woman.

[348] See World Bank Global Directory of "Early Child Development Projects" Supported by the World Bank 2003, Washington, DC, 15th November 2016, at 9:00 PM, under http://siteresources.worldbank.org/INTECD/Resources/Globaldirectory03.pdf

identifiable sequence of physical, cognitive, and emotional growth and change. This metamorphosis of the child is conditioned by the prenatal treatment of its mother and the quality of its first years (until 5). More than nutrition, health, emotion and cognition, its education at home before it attends school is very important for its building of capacity and capability to develop and to learn. Early Childhood Education can change the development trajectory of children by the time they enter school because the child is ready for its life rumble. It will not repeat a grade and/or drop out by itself.

The child is armed with: socially and emotionally healthy psychology, confident in itself, and friendly by itself; entertains a good relationship with other children; tackles challenging tasks and persists with them; has good language skills and communicates well; and listens to instructions and is attentive.

ECE also includes parent education and supports, delivering services to children, developing capacities of caregivers and teachers, and using mass communications to enhance parents and caregiver's knowledge and practices[349]. Programs for children can be center or home-based, formal or informal.

4.1.1 Childhood Care

It begins at birth 0 until the 8th year[350]. Generally, this period is called: Early Childhood Care and Development (ECCD). It is the provision of services that respond to young children's basic needs for cognitive stimulation, early learning, nutrition and basic health care[351].

4.1.1.1 Early Learning/School Attendance

The available institutions in the CFA-Zone are the maternal school (école maternelle for 3-6 years) and the children garden (jardin d'enfants from 2 years already). It is obvious that there is a high demand of preschool in Benin. Most part of the supply is made by private entities in the cities. To narrow the gap between rich and poor, the government is in charge to lower the entry price

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349 See World Bank Global Directory of "Early Child Development Projects" Supported by the World Bank 2003, Washington, DC, 15th November 2016, at 9:00 PM, under http://siteresources.worldbank.org/INTECD/Resources/Globaldirectory03.pdf

350 It is a scientific time schedule to build up brain for the future.

351 See "Early Childhood Development in Africa: Can we do more for less? A look at the impacts and implications of preschools in Cape Verde and Guinea" from African Region Human Development, Working Paper Series, by Adriana Jaramillo and Karen Tietjen, World Bank – Washington, July 2001, Executive Summary, p. 1.

barrier, to improve or to set type and quality standards for private as public preschool, therewith equalising the ability and cognitive development of children, improving household welfare by freeing members for other production/economic activities.

The design and implementation will focus the poor and the poorest at first, because it is not only the mother but also the sibylline sisters, which are free and can attend school. Government contribution to preschool is widened to guarantee equity between the children and family, to train local teachers in the specific programmes and targets with efficiency and quality. There is none blueprint to help a government because the process is country and/or region specific.

4.1.1.2 Cognitive Stimulation

The psychology of a child, its cognitive stimulation is build up from birth to age 8. Eight years is the so-called age of reason. According to the scientists, the most cell development in brain takes place within the first two years (for walk and other dexterities) after birth and arrived to 90 % of the adult size at 6 years. It is obvious that this development process takes only place in a healthy cross sectors environment (psychological, physiological, affective, protective, nutritive, health, sociological, educational, simulative, environmental etc.). It may sound too large, but it is still a healthy environment for the child's development. Poverty does not able these opportunities. Poverty misleads the development to a second-class adult in the future.

4.1.2 Early Childhood Basic Needs

Basic needs do not have the same sense for children as for adults, but it does have some similarities such as human rights to live and to develop its (child) potential, to take a fair part of the economic and social benefits. All these points aim to cover a balanced physical and psychosocial development through care[352] and education at various stages of early childhood inclusive "in utero" (prenatal care). The benefits of ECCD do not only belong to the children but to each member in the whole society as in the next table below.

Return on investment in EECD can be otherwise evaluated. For instance, 30 (thirty) years after the experience, a study on preschool program in Michigan

[352] In this case, care means nutrition, health, affection, protection etc.

brought that "returns to the public over the lifetime of the participants were estimated at $ 7,16 for every dollar invested in the programs"[353]; whereas today, more than 98 % of children grow up in Africa by growing need without any benefit of ECCD programs or interventions[354].

Table 14: Benefits of ECCD Programs by Beneficiary Groups

Beneficiary Group	Area of change	Indicators of change
Children	Psycho-social development	Improved cognitive development (thinking, reasoning); improved social development (relationships to others); improved emotional development (self-image, security); improved language skills
	Health and nutrition	Increased survival chances; reduced morbidity; improved hygiene; improved weight & height for age; improved micronutrient balances
	Progress and performance in primary school	Higher chance of entering; less chance of repeating; higher learning and better performance
Adults (program staff, parents) and siblings	General health knowledge, general health attitudes and practices	Improved health and hygiene; improved nutrition (own status); preventative medical monitoring and attention; timely treatment; improved diet
	Self-confidence, Relationship, Employment	Improved relationship between husband and wife; between parents and older children; caregivers freed to seek or improve employment; new employment opportunities created by program; increased market for program related goods
Communities	Physical environment, social participation, solidarity	Improved sanitation; more space for play; greater female participation; greater demand for existing services; community projects benefiting all
Schools and health service facilities	Efficiency	Better attention to health; changed user practices; reduced school repetition and dropout
	Effectiveness; Capacity; Practice and Content	Greater coverage; improved ability; confidence; or organisation; methods and curriculum content
Society	Health and education status; Participation; Productivity; Delinquency; Fertility; Equality	Fewer days lost to sickness; a healthier population; a more literate, education population; greater social participation; a more productive labour force; reduced delinquency; reduced fertility; reduced social inequality

Source: "Early Childhood Development in Africa: Can we do more for less? A look at the impacts and implications of preschools in Cape Verde and Guinea" from African Region Human Development, Working Paper Series, by Adriana Jaramillo and Karen Tietjen, World Bank – Washington, July 2001, p. 10.

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353 See "Early Childhood Development in Africa: Can we do more for less? A look at the impacts and implications of preschools in Cape Verde and Guinea" from African Region Human Development, Working Paper Series, by Adriana Jaramillo and Karen Tietjen, World Bank – Washington , July 2001, p. 11.

354 Ibid., p. 12.

4.1.2.1 Preschool

It is a description of what to be established at the national level as private and public preschools without discrimination. It is a matter of quality and standard. Commonly, preschool in Benin is most of the time a private institution (NGOs, community, civil society or parent's initiative). The public one is some artefact of a past or actual government but different of that in Guinea-Conakry, Algeria. Coverage such as Cape Verde and Tunisia are like those in Benin or Togo in their structures and are west oriented.

The particularity of all the preschool system in French West Africa is that they are concentred in the urban area, corresponding to the population density, the number of children attending and/or able to attend the preschool. Usually, children from 4-6 years constitute the majority of the enrolment. Only few preschools are able to welcome children from 2 years.

Gender discrimination characterises already the enrolment at preschool through the majority of boys all over Africa, independently[355] of the family social status and religion. The wealthier family are the exception. The teaching personal are trained in the same conditions as the current teachers with the difference that only few required a high level education. Most of them are the so-called *assistant* (e) or *monitor* (monitrice) either half professional or none.

The financial aspect of a preschool is one of the hidden determinants of attendance facility. For instance, it depends on the country policy and on the resource availability. Either it is financed by a joint venture between the government and the community/municipality or it is private financed (NGOs, community, organisations such as Red Cross, Unicef, Religion, Parents etc.).

It does not matter which system is running the preschool, parents are paying additional fees to maintain and to sustain the preschools. According to the area in which the preschool is established, the current fee amount can be a price barrier of entry because an average of some 10,-€/month/child is a heavy duty in a household budget in relation to the country GDP per capita. Therewith, the wealth of the parents is in most of the case a determinant of attendance and quality. The focal point of a genuine policy is to introduce a quality standard of all kind of preschool and fee subsidies for the poor and most vulnerable people.

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[355] Field research, Sommer 2003 in Cotonou, Lomé, Abidjan, Accra, particularly by man headed family.

4.1.2.2 Child's Development

Children were not born as spontaneous labour force. Until a certain age, they do have a development. This first period of their life is the caution for their future development. In turn, this development is based on the cognitive ability, the physical shape and child's resistance, which further condition the child dexterity, mobility and reaction in its own life. This chain's reaction is high sensible to externalities. Let us consider that a child has literate parents who use to spend some time with it, every day (affection, play/game, read etc.), added to the fact that this child is enroled in an average quality preschool.

Exactly this child will have a better score (over than average without drop) than its peers with literate parents but contactless or unfortunately illiterate parents. The sustain contact between child and parents is vital for its (child) affective and environmental cognitive approach.

On the other hand, preschool predisposes the children to improvement, to prepare them to school readiness[356] through pre-reading or visual skills. One point that is often not considered is the fact that children, together in a classroom are closer to contagious sicknesses so then improving their resistances in early childhood. Further, the mal- and under-nourished are immediately detected. Preschool with canteen are too rare to be accounted. It belongs to the parents to learn how to balance at home the nutrition-inputs in the early childhood of their children. Informed parents are better off for their children physical shape and resistance to illness.

4.1.2.3 Inputs to Decision-makers and Policy-designers

To narrow the gap between rich and poor in Benin, it is obvious and important to design a genuine standard (qualitative) without deviation for all preschool. The standards will aim to develop by children the highest cognitive and dexterity abilities.

The building can be liberalised in their design and equipment, but not the standards and the level of the teachers and teaching program. The effectiveness

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[356] See "Early Childhood Development in Africa: Can we do more for less? A look at the impacts and implications of preschools in Cape Verde and Guinea" from African Region Human Development, Working Paper Series, by Adriana Jaramillo and Karen Tietjen, World Bank – Washington , July 2001, p. 27.

of the teachers is based on their experience and appurtenance (ethnic, community in particularly locality). Nevertheless, these teachers are closer to the children needs than to their own academic grades.

The pupil-teacher ratio has to be standardised as well. Indeed, it is a delicate problem. The best score[357] registered in Europe is (15-25). In SSA, already infrastructural poor, one could use for a first period[358] (20-30). In the program, the choice of language of instruction should not be a source of cognitive stress for the children. Therefore, only one will be used e.g. the one in primary school. By games and play, children improve together by themselves and/or with parents their level of native language.

A low-cost preschool in rural area must be equalled effective and efficient as a high-cost one in urban-residential area. The costs will not have any influence on level/quality, but unfortunately could have some influence on the maintenance and repair of the infrastructure[359]. The aim is to alleviate disparity. According to the country regional specificities, it is hard to design a universal program. Meanwhile, the target is still the same: the poor and the disadvantaged, which access, quality and equity by attending preschool have to be seriously improved. Therefore, short, focused, reliable, and contextualized training can be more efficient and less costly than most available formal programs[360].

4.1.3 Child Labour[361]

The unquestionable argument against child work is economic. Child labour bias and stress in a downward spiral the human capital accumulation with adverse effect on growth e.g. downturn of productivity and efficiency in long run,

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357 Field research in Bremen/Germany, spring 2003.

358 Period of implementation and popularisation.

359 See above and field research in primary school in Cotonou/Benin, Lome/Togo, Abidjan/Ivory Coast, Sommer 2003: Surely as far as the preschool is men-managed instead women-managed.

360 See "Early Childhood Development in Africa: Can we do more for less? A look at the impacts and implications of preschools in Cape Verde and Guinea" from African Region Human Development, Working Paper Series, by Adriana Jaramillo and Karen Tietjen, World Bank – Washington, July 2001, p. 39.

361 It could sound as a repetitive chapter in this work. One should carefully pay attention to this problem, which has a heavy influence on the future of a nation. Once in an international conference, a Beninese asks his colleagues from America and Europe:"Gentlemen, will you mind to let your 10 years old child works in Africa or India in harmful conditions with other risks and abuses for sound 60 hours per week?". They were all disappointed and did not answer the question. (Field research in Cotonou, Sommer 2003).

because the children are exposed[362] to psychological stress, depression, risks and various abuse, low self-esteem. The common indicators for their labour are the conditions, wage, hours per week and the affective-cognitive environment. Although most of the countries have signed a legal minimum age and conditions, unfortunately, the LDCs are not able to implement and enforce the legislation.

The poverty pressure is higher than child lobby pressure. Only the formal sector is an exception by child labour, whereas agriculture, households and the informal sector are still the biggest consumer of child labour. The simple most effective way to stem the flow of school-age children into abusive forms of employment is to extend and improve schooling so that it will attract and retain them[363].

If the protection strategy is not embedded into a strategy of poverty alleviation, it will result into meaningless efforts. Indeed, children contribute with a great proportion to the household revenue. This proportion is capital, crucial for survival. It is necessary to integrate the parents/families of working children in the policy and strategy; to help them take conscience of the loss of human capital and to propose them an alternative incentive source of revenue. The key dilemma is to find a scheme to give alternative income sources to the parents. It is also an inclusion of children in social assessments.

From the parent's side, a short-term cost-benefit/cost-use analysis leads to pull the children from school and push into labour. The consequence of this short-term necessity in the future is the increase of mass-poverty.

Public awareness will put pressure on employers, added to a program of basic education which easier the attendance of decent work and school at an incentive cost for the poor and most vulnerable households. It does not mean that working children stress is cancelled, but it is at least minimised.

4.2 Benefits of Education

Worker productivity, firm competitiveness and profitability of a company have all at their basis: the educational aspect of human capital. No growth, no pro-

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362 The burden of negative effects on children is most of the time hidden and appears at adults.

363 See "Child Labour, Issues and Directions for the World Bank", Social Protection – Human Development Network – World Bank, by Peter Fallon and Zafiris Tzannatos, February 1998, p. 8.

gress could ever happen without human's skill. This capital is "inside", embodied in individual. It is also the productive addition of innate and later learned.
Any increase of this bundle will increase the ability to reach a higher level (income, social status, dignity, self-reliance, etc.). Education is the motor of this bundle, the gold path of achievement, the rise of cognition, the instrument to absorb information and to apply productively this cognitive information at work and to acquire new one.
On the labour market, it is obvious that educated or higher educated people will earn more under a wide better employment conditions (environment, security, equity and stability with career opportunities) than their counterpart part less or non-educated.
For the firm, it is easy to train an educated rather than an uneducated, so then, uneducated people are confronted with an adverse selection by searching employment. They cannot easy get out of the poverty downsizing spiral. Government hopes return of its investment in education; a return translated into economic, social and technological accelerator for development. The most important point we have to take care of is that; education is not the lonely factor for the wealth, development and growth of a nation.

4.2.1 Micro-Economic Considerations of Education

"*However you, illiterate pull on the wire against an educated one, you will always loose the challenge*"[364].
Over education, each one can measure the achievements, in direct and indirect economic, dignity (self-estime) and social form. It is often translate into earning or wage, because it puts the concerned into a situation where they can rapidly learn, think and implement everything they have access to. In modern as in traditional situation they are better off.
They also have the choice between different activities or segments of activities. They are physical and mental, mobile and flexible. Over education, people are able to upgrade their living standard and quality. It is so easy with education to have a balanced health, nutrition, so then to upgrade life expectancy. It doesn't matter if the person is a woman or man, the person increases self-reliance, can make decision; deal with the world in all matter. Whereas illiterate man may

[364] This is an African proverb explaining what education can bring to someone.

obtain a basic jog of cleaner by the state, woman has to be at least educated i.e. finish her primary school with exam.

But, with this tiny education of primary school, the same woman is able to have the control on family planning, health and nutrition of the family, so then on income, education and life expectancy. It is a huge amount of benefits, on return of investment that a State becomes by investing at least the same level of resource on male and female.

From one generation to the next, the higher the parents are educated the higher the children are going to be educated, anyway better than those of non-educated parents.

It is a simple but logic consequence of education within a family. This assumption is sustained by the arguments[365] of Lam, D. and Duryea, S. The hidden but sizable effects that education can bring are often measured by women rather than men. In Benin, a short visit of one of the greatest markets in Cotonou highlights the women power with or no-education, in traditional informal up to High Tec modern business and in the management of their household, where they are often the head. Under this condition, a clear difference can also be made between the educated and the uneducated women. These differences are: self-reliant and confidence in decision-making, earning/income, health, nutrition, life expectancy, family planning, productivity, household budget management, social acceptance and connection, transfer of know-how and education, etc. Educated women use all modern procedures and opportunities. For whatever reason, a household budget running by an even educated man has never such positive impacts than that running by an educated woman, because the priorities are not the same.

This situation brings *the question about the wealth of a nation, if it may not be better to invest in female education rather than male education?*

Beyond the analysis at macro-economic level, the works at micro-economic level go in the same direction. It is now clearly obvious that the productivity of farmers and their ability to benefit from the actions of management or production lines in agricultural projects were better among those who could read,

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[365] See Lam, D. and Duryea, S. in, "Effects of schooling on fertility, labour supply, and investments in children, with evidence from Brazil" by the Journal of Human Resources, no. 1, vol. 34, p. 160, 1999.

write and count. Works in Niger[366] in the informal sector lead to similar conclusions. Despite the lack of technological content in the curricula of primary, those who have a successful primary schooling:

a) derive maximum benefit from their learning;

b) tend, more often than their counterparts not enroled in select more "modern" fields in informal activities where they settle;

c) obtain a better income through their operation.

It has sometimes been argued that primary education should be reformed and that practical skills should be incorporated in its curricula. It is useful to keep in view the tension between two seemingly contradictory objectives:

– That of "tradition" and integrating the local environment; it is necessary that the content of education is as little disruption as possible with what children know and what parents perceive as interesting.

– That of "modernity"; in the prospect of disruption, a school designed as an instrument of economic and social change, this school must equip youth with tools that will enable them, in a variety of circumstances (geographical mobility and/or professional) to be the engines of change.

In fact, nothing is better than the learning and cognitive procedures provided by a relatively traditional primary school quality because this learning is a huge instrument which enables youth to deal with all different and less complex activities (in the case of agricultural and informal activities) in a country like Benin. Indeed, we may well consider formal learning and cognition of operative nature, using inductive methods corresponding to practical situations that are meaningful to students (problem solving or answering questions that are brought to ask farmers or mothers, writing letters to the administrative authorities to address community problems, etc.).

It is clear from this discussion that the reference investment or the so called "investment benchmark" for the agricultural and informal sectors is the primary education and it will be good to think about these issues in terms of basic schooling adjoining primary to secondary education. But the primary level is primarily concerned for two complementary reasons:

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[366] See Jarousse, J P and Mingat, A. in, "L'enseignement technique court au Niger: une évaluation par le marché"; Iredu, Rapport pour le ministère de l'éducation nationale nigérien. 1989 and, "Evaluation pédagogique et économique de la double vacation au Niger" Iredu, Rapport pour le ministère de l'éducation nationale nigérien.1991

a) The first is obvious: it is necessary that students have completed the primary to consider continuing in the secondary.

b) The second is a matter of priority and strategy; it is beyond doubt that very substantial Primary improvements are needed – we have repeatedly emphasized it in this context, so it will probably be useful to include a step by step evolution, timing and sequence in this development, in successive phases.

4.2.2 Macro-Economic Considerations of Education

As we have seen above, education plays a strategic role for the future of people and their nation. None can dissociate the growth (economic and social) and the wealth of a nation from its average education level. Some powerful precedence can underline this assumption: the whole South Korea, regionally Bengalor in India and Tijuna in Mexico as Johannesburg in South Africa. They have all improved the quality of their population to accelerate at least a broad-based growth, welfare and poverty reduction. Even this quality remains hardly regional or communal. In the case of India and China, we can sustain our assumption with the argument that "a large stock of human capital makes it easier for a country to absorb the new products or ideas that have been discovered elsewhere, a country with more Human Capital tends to grow faster because it cashes up more rapidly to the technological leader"[367].

It is not a matter of education alone, but with other departments and factors in time and sequence, which are conductive and supportive for education leading to growth of human capital and of economy. With a population growth of about 20 % of the incoming class of CIs every 6 years, there's plenty to worry about financial pressures and budget necessary in Benin.

– Benin's population grew from 3.4 million in 1980 to 4.7 million in 1990, it was estimated to be approximately 6.2 million in 1999 and is about 9 million in 2010. The population structure is characterized by a high proportion of young people. It is estimated that the "less than 15 years" represent approximately 47 % of the population and there is almost an adult of 15 to 65 per child under 15 years.

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[367] See Temesgen Kifle in, "Return to and demand for Education in Eritrea and the Role of International Remittances", Dissertation by the University of Bremen, 2003, p. 81 quoting Barro, R. in, "Economic growth in a cross section of countries", by The Quarterly Journal of Economics, vol. 106, Issue no. 1, pp. 408-409.

It is estimated that the annual growth rate of the young population of school age, may be somewhat lower than the population of the entire country over the next ten years (2.6 % seems to be a reasonable estimate). Demography is proving a huge and permanent exogenous constraint for the education system. In the short term, "games" are largely made. In the medium to long term, the demographic landscape is both, more uncertain and subject to changes due to policies that focus on birth control as well as infant mortality, which, as we know, belong to classical actions concerning population and health as actions in important areas, as access to water and education of girls.

– The financial and budgetary matters still require what we must call the constraints to the development of education systems. But we can also present the available resources as in table 15 and 16 below for the sector as resulting of:

a) resources that the state can pull out its economy,

b) tradeoffs in allocating resources among different sectors and

c) its ability to mobilize extra-budgetary resources (users, communities, businesses, NGOs, international aid, etc.).

Table 15: Assumption of Macroeconomic Simulations and Anticipated Resources

Anticipated national resources	**2005**	**2011**	**2015**
GDP (Millions CFA)	2 298 700	3 235 465	4 241 035
GDP Annual Growth Rate (%)	"	7 %	7 %
Tax and non-tax revenues (excluding grants) in % GDP (Fiscal pressure)	16.7 %	17 %	18 %
Tax and non-tax revenues (excluding grants) in millions CFA	383 550	550 029	763 386
Domestic Resources for current education expenditure over revenues (excluding grants) in %	22.49 %	24.34 %	24.50 %
Total current domestic resources (excluding grants and debt relief) for education, off literacy sector (millions CFA)	86 279	133 876	187 030
Domestic resources for current expenditure in primary education (indicative framework Fast Track) in % of the state resources (excluding grants)	11.2 %	11.2 %	10.5 %
Domestic resources for current expenditure in primary education (in millions CFA)	42 949	61 775	80 156

Source: Assumption of PDDSE, 2006-2015.

With 1.3 percentage point growth from 16.7 % to 18 % of the tax and non-tax revenues (excluding grants), the amount has nearby double between 2005 and 2015: from 383 550 to 763 386 (millions FCFA). This has in turn influenced for more than the double for lonely primary education off literacy. This is once again confirmed by the amount of Domestic resources for current expenditure in primary education (in millions CFA): from 42 949 up to 80 156 in the same period.

Table 16: Summary of financial evaluation of PDDSE, 2006-2015 shows the distribution of the resources by level of education. It is only regrettable, that Technical & professional, Alphabetization & adult education that are more needed must concede a huge amount for Superior education and scientific researches. Employment is already not so far developed for high education employees in Benin.

Table 16: Summary of Financial Evaluation of PDDSE, 2006-2015 (thousands of FCFA)

Sub-sector	2006	2009	2011	2006-2015
Maternal/Nursery education	1 001 775	1 984 862	2 811 248	25 778 577
Primary education	64 142 876	89 842 408	107 853	1026 583 543
General secondary education	28 288 265	40 521 477	46 557 347	458 160 683
Technical & professional education	8 134 428	16 141 930	20 389 880	141 824 927
Superior education and scientific researches	24 176 756	28 719 790	31 525 617	303 764 972
Alphabetization & adult education	1 355 837	1 564 174	1 797 618	16 726 407
Total	127 099 937	178 774 641	210 935 052	1 972 839 109

Source: Evaluation of PDDSE, 2006-2015.

If it is not possible for a country to allocate 70 % of its budget to education, we can observe in practices the extreme importance of components such as selection and choice.

It is the same for use of extra-budgetary resources: while some countries opt for a mainly public funding, others seek to define their share of educational policy in a complex of various contributions. In the latter case, the State emphasizes that it is its responsibility to provide children of a given generation the

best educational opportunities and not to fund and establish all activities attached thereto by itself.

4.2.3 Social Impacts of Macro-Economy and Budgetary

In general, budgetary resources for the sector will depend on a) the overall economic growth and GDP growth, b) the country's ability to raise revenue for the operation of its public services and c) arbitrations conducted more or less favorable for the education sector in the different functions financed by the state.

It should be noted that, in future, these arbitrations will be conducted in the context of the initiative for the reduction of foreign debt and the country strategies for poverty reduction. Two types of consequences can result:

– Firstly a general context more conducive to social sectors;

– Secondly that the resources saved should be used for operations on poverty including education.

In the next decade (2010-2020), the HIPC initiative should lead to an average reduction of about 6 to 7 billion CFA francs. But it is unlikely that more than 50 % of the amount paid by the reduction of external debt can be allocated to the education sector. The current budget sector being about 45 billion CFA francs, we see that the HIPC resources specifically for education should correspond to a budget increase of less than 10 % instead of 37 % (except maybe 15 % for primary education). In terms of public finances, ordinary prospects for mobilizing additional resources for the education sector also exist. Public resources for the sector come from the state budget, so they depend on:

a) The ability of the state to levy taxes on the economy. The tax burden is now around 17 % of GDP, but it is unlikely that this amount increases significantly over the next decade (an increase could affect growth), although it may probably reach about 19 % by 2011.

b) Decisions made by the government between public expenditure items. The education budget absorbs about 17 % of state resources and it is probably possible to increase this to 20 or 22 % if the sector knows how to show its ability to use public money more efficient and equitable.

In this projection, with 19 % of tax burden and public expenditures for the sector representing 22 % of state revenue, public funding of education would be

equivalent to 4.18 % more of GDP, which is certainly better than the current 2.9 %. For a country like Benin to build education system responsive to current needs, public funding of education should at least reach the 5 % of GDP. To conclude, it is essential that the sector knows how to be very efficient in the use of public resources, because substantial improvements in efficiency and fairness of the system are possible.

4.2.4 Impacts on Human Capital Development

4.2.4.1 Weight of Income on Education

The meaning of education for individual and for society was for long, not taken into account in development strategy, accumulation of the stock of Human Capital and poverty reduction researches. Education has a wide range of deep takling influences on individual, on family and on society.

Education[368] is a process through which the updated sum of over time accumulated experience and know-how is transmitted from one generation to the next with the aim of enabling individuals and societies to upgrade participation in the development process as for individual wealth and equalitarian income distribution. Therefore, education plays a key role in enhancing economic progress, playing a crucial role in development strategies and poverty reduction by improving individual welfare, human capital and social development. Further, according to the World Bank Sector Report, education raises individual labor productivity, increases income (i.e. purchasing power), technological adaptation and innovation as self-esteem. It also contributes to better health and nutrition.

This paragraph will establish a relation between income and the accessibility to education in Benin. The inequality of access is only and purely due to income inequality. We will also see that wealthier families are most of the time well educated. If household income is determinant for access to education, it also means that the level of education determines income. Indeed, an increase[369] in

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[368] See Hannum, E. and Buchmann, C. in, "Global Educational Expansion and Socio-Economic Development: An Assessment of Findings from the Social Sciences", by World Development, 33(3), 333-354, 2005.

[369] See "Income distribution and accessbilty to primary and secondary schools in Nigeria" by Reuben Adeolu Alabi; Berichte aus dem Weltwirtschaftlichen Colloquium der Universität Bremen, Nr. 113, Juli 2008 ISSN 0948-3829, Abstract. At 11:00 AM, 15th November 2016, under http://www.iwim.uni-bremen.de/publikationen/pdf/b114.pdf

access to basic education can redistribute income faster than increase in household income.

This does not mean that uneducated wealthier people don't care to their children education. It is still a difference between primary and secondary level of education. The income redistribution[370] effect of accessibility to secondary school is greater than primary school.

As we will further confirm the statement on research of Alabi[371] Reuben Adeolu, household income is an important determinant of access to education in West Africa countries (i.e. from Senegal down to Gabon). Increase in facilitated access to education can better redistribute income than increase in household income. The income redistribution effect of accessibility to secondary school is greater than basic school.

So then, a policy aiming at equalization of access to primary and secondary school education might help in reducing income and living standard inequality. Economics of Education have documented how schooling[372] improves productivity, health, nutrition and reduces negative features of life such as child labor as well as bringing about gender and whole economy empowerment.

Despite the positive role of education in human capital development and building, improving access to education has been elusive and hard to be implemented in the developing countries and specifically Sub-Sahara Africa where Benin does not mean an exception.

Benin has alleged in its Poverty Reduction Strategy Paper (PRSP 2002) for education, its strategic position as key for development that, overcoming illiteracy and ignorance will form a basis for accelerated national development and people wealth.

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[370] See Alabi Reuben Adeolu in, "Income distribution and accessibilty to primary and secondary schools in Nigeria", by Institute for World Economics and International Management (IWIM) University of Bremen, Bremen, Germany and Alexander von Humboldt Research Fellow, from Berichte aus dem Weltwirtschaftlichen Colloquium der Universität Bremen, Nr. 114, Hrsg. von Andreas Knorr, Alfons Lemper, Axel Sell, Karl Wohlmuth.

[371] See Alabi Reuben Adeolu in, "Income distribution and accessibilty to primary and secondary schools in Nigeria", by Institute for World Economics and International Management (IWIM) University of Bremen, Bremen, Germany and Alexander von Humboldt Research Fellow, from Berichte aus dem Weltwirtschaftlichen Colloquium der Universität Bremen, Nr. 114, Hrsg. von Andreas Knorr, Alfons Lemper, Axel Sell, Karl Wohlmuth.

[372] See "EFA Global Monitoring Report (2002), Education for All: Is the World on Track, Paris: UNESCO" and World Bank under: http://web.worldbank.org/wbsite/external/topics/exteducation/0,contentMDK:20264769~menuPK:613701~pagePK:148956~piPK:216618~theSitePK:282386,00.html.

In this line, measures were settled down to balance the remaining inequalities due to the growing inequality on low income and high income, to the location and regional disparities. There are, concerning education, a huge amount of similitude between Benin, Nigeria, Ghana and Togo, as with the rest of West Africa countries. Therefore, the focus will be on the essential role of the income, income inequality, location and regional implications in explaining accessibility to education by this approach. By the way, the lesson on human capital building and development will be reinforced.

To reinforce education[373] will have some meaningful impacts on individuals, income, the societies and economic. Primary it is a great deal on determining outcomes to educational investment and the building of human capital and to build and support a network of institutions and build bridges with all those interested in the promotion of Human Capital. Furthermore, to identify opportunities for improved efficiency, equity, and quality of education and promote effective education reform processes; to help improve and better strengthen the links of education systems with the labor market.

4.2.4.2 Income and Education between Rich and Poor

As the last precedence in Uganda has showed, the country can suddenly discover a large strategic natural resource such as oil, gas or diamante but; the country is not able to import substitutive technologies, because of the lack of Human Capital able to serve complex[374] or new technologies and market options. This case of Uganda is the same as in Benin and it exposes how Human Capital Building and Sustained Development are likely to be critical in determining a country's future economic growth and by the distortion of distribution of income and wealth between poor and rich. The way reforms are implemented (if they are so) can even endanger the future of a whole generation within a country by exacerbating the later risk[375] of social conflicts between the youth

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373 http://web.worldbank.org/wbsite/external/topics/exteducation/0,contentMDK:20264769~menuPK:613701~pagePK:148956~piPK:216618~theSitePK:282386,00.html.

374 See Rosenzweig, Mark R. (1995), Why Are There Returns in Schooling? in: American Economic Review 85(2), 153-58.

375 See World Bank under: http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTEDUCATION/0,contentMDK:20264769~menuPK:613701~pagePK:148956~piPK:216618~theSitePK:282386,00.html , and Collier, P., (2000), Economic Causes of Civil Conflict and their Implications for

citizens and government as we have seen in North Africa in Winter 20011, even causation of civil war. The main question by such implementation must be: "who is really going to benefit from the educational program?"

Based on the review made by Behrman and Knowles (1997) on 42 studies, covering 21 African countries of the cases for which, they can estimate income elasticity, the median elasticity is 0.20. This number suggests that children from higher-income households do better in school than children from poorer households, although the magnitude of the effect is small[376]. However, these studies did not provide the information about the source of this fundamental difference in the results at school between the two classes of children. But we also know that in all those countries, the common denominator for the low income household children is their duty before and after school. Those poor children are definitively not free to attend school. Either they are contributing to household revenue or in charge for household duties. At the end, they are no more able to complete their school duties as their homolog in non-poor households. This is the point, the cornerstone of future inequality, although the education program has given the same chance for all. The poor are overloaded.

4.2.4.3 Income and Educational Investment

In this configuration, what are we calling investment and education investment? It is a question of semantic, of definition[377] that can bias the study and the argumentation.

Investment is the commitment of money or capital to purchase financial instruments or other assets in order to gain profitable returns in form of interest, income, or appreciation of the value of the instrument. It is related to saving or deferring consumption.

Investment[378] is involved in many areas of the economy, such as business management and finance no matter for households, firms, or governments. An in-

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Policy, mimeo, Washington, D.C.: World Bank. And World Bank (1996), Vietnam Education Financing Sector Study: A Sector Report .Report 15925-VN, Washington, D.C.

376 See ALABI Reuben Adeolu in, "Income Distribution and Accessibilty to Primary and Secondary Schools in Nigeria", and Behrman, Jere R., and James C. Knowles (1997), How Strongly Is Child Schooling Associated with Household Income?, Department of Economics, University of Pennsylvania, Philadelphia.

377 See http://en.wikipedia.org/wiki/Investment, http://en.wikipedia.org/wiki/Rate_of_return.

378 See "Investment" by Actuarial Post, 16th November 2016 at 4:15 PM under http://www.actuarialpost.co.uk/wiki/investment-3.htm

vestment involves the choice by an individual or an organization. In the case of investment, rather than store the good produced or its money equivalent, the investor chooses to use that good either to create a durable consumer or producer good, or to lend the original saved good to another in exchange for either interest or a share of the profits. In the first case, the individual creates durable consumer goods, hoping the services from the good will make his life better. In the second, the individual becomes an entrepreneur using the resource to produce goods and services for others in the hope of a profitable sale. Investment implies the rate of return.

In finance, *rate of return* (ROR), also known as return on investment (ROI), rate of profit or sometimes just return, is the ratio of money gained or lost (whether realized or unrealized) on an investment relative to the amount of money invested. The amount of money gained or lost may be referred to as interest, profit/loss, gain/loss, or net income/loss. The money invested may be referred to as the asset, capital, principal, or the cost basis of the investment. ROI is usually expressed as a percentage rather than a fraction.

The *asset*, good or service in which one invests is the school i.e. education in low income countries such as Benin. Therefore, it is useful to determine[379] why there might be associations between household income level and investments in education. As we have seen in other cases, this kind of investment may affect or oriented future behavior and consumption, but because these effects are obtained in the future, current education is for such purposes an investment. At least, if individual behavior in the future changed, if the bundle of consumption is more different, if the social standard also changed because of the obtained education, then is the relationship[380] between education as an investment and household income multifaceted and more complicated than the relationship between education as current consumption and household income. This makes the research more interesting.

Furthermore, the "breadwinner" or the chief of the household allocates this amount to education which means in return that, he/she has to save it from

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[379] See Alabi Reuben Adeolu in, "Income distribution and accessibilty to primary and secondary schools in Nigeria", by Institute for World Economics and International Management (IWIM) University of Bremen, Bremen, Germany and Alexander von Humboldt Research Fellow, from Berichte aus dem Weltwirtschaftlichen Colloquium der Universität Bremen, Nr. 114, Hrsg. von Andreas Knorr, Alfons Lemper, Axel Sell, Karl Wohlmuth.

[380] Ibid

some other accounts by making a re-allocation of the household-budget. This re-allocation has a heavy mean for poor households, according to their characteristics in low income countries such as Benin.

The central question is: why should marginal[381] private benefits of education be associated with household income level in the presence of government policies or market imperfections i.e. due to asymmetric information, by not taking into account the specificities of the poor such as income difference, political and economic power, health and nutrition improvement, facilitated private tutoring and access to social network, good relations on market, adverse selection by investment, or the parents human capital stock? The arguments were provided by R. A. Alabi[382]. The reasons of the high income parents are mostly against market imperfections, whereas the marginal private costs for such investments are particularly high for individuals from poorer families who cannot as easily finance these investments themselves.

4.2.4.4 Education and Income Distribution

If we consider the education landscape in West Africa early in the 60th after independence until the middle of 70th in Benin, there was inequality in education due to income inequality of the parents by tertiary education. For the students, there was either Dakar (Senegal)/Abidjan (Ivory Coast) for the poor or mostly Paris (France) for the high income.

This inequality in the quality of education increases later on the earnings inequality but paradoxically, the higher the level of education by the students, the lower the income inequality independently of the place of the education.

At the secondary and primary level of education in a country, this difference was between private and public school. Pupils attending private school were better off than those attending the overcrowded public school in general. On the other hand, parents with higher education are likely to be more involved in their children's education where ever this education[383] takes place. This landscape of education[384], although there is a university in Benin since the 70s and

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[381] Ibid

[382] See Alabi, ibid., pp. 6-8.

[383] See Bedi, A. S., Kimalu, P. K., Manda, D.K., and Nafula, N. in, "The Decline in Primary Enrolment in Kenya" by Journal of African Economies, vol. 13, no. 1. pp. 1-43, 2004.

[384] See Fischer, R. D. and P. J. Serra in, "Income convergence within and between countries" by International Economic Review 37(3), 531-551, 1996. Lee, J. W. and R. J. Barro in,

a large market for education, the marginal private[385] benefits of schooling is still associated with household income and education level in the presence of government policies or market imperfections.

Nevertheless, we have to recognize that, under gender discrimination and inequality in the quality of the education, female[386] agents are doing better than male by having a greater return on investment in public school as almost all pupils under the national average of human capital. It is due to the aspirations to be later better off in the society than their parents. There is no doubt that from government, an effective education policy would be a first-best poverty reduction strategy.

"The centrality of education in poverty-reduction policies stems from the belief that education is a powerful equalizer. Human capital is supposed to generate internal and external effects, where the latter means that the average level of education also contributes to the productivity of all other factors of production … to improve the income, and to speed up development. This implies that a more equalitarian distribution of education may constitute an efficient means of reducing irregularity of income distribution"[387].

There is in Benin as in the most countries of SSA a great similarity in how people are placed i.e. wage, income according to their educational level[388]. For

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"Schooling quality in a cross-section of countries" by Economica 68, 465-488, 2001. Zilcha, I. and Viaene, Jean-Marie in, "Public and private provision of education and income inequality", Discussion Paper no. 7-2003, The Pinhas Sapir Centre for Development, Tel-Aviv University, 2003.

385 See Alabi Reuben Adeolu in, "Income distribution and accessibilty to primary and secondary schools in Nigeria", by Institute for World Economics and International Management (IWIM) University of Bremen, Bremen, Germany and Alexander von Humboldt Research Fellow, from Berichte aus dem Weltwirtschaftlichen Colloquium der Universität Bremen, Nr. 114, Hrsg. von Andreas Knorr, Alfons Lemper, Axel Sell, Karl Wohlmuth.

386 Child school attendance is determined by a host of factors including household, child number, and community characteristics i.e. specific and endogenous cultural factors.

387 Ibid., Alabi, pp. 10-11.

388 See the comparative results by: Dercon, S. Selassie, T.G. and P. Krishan in "The Urban Labour Market during Structural Adjustment in Ethiopia", by eds. Bigsten, A, Kebede, B. and A. Shimeles, "Poverty, Income Distribution and Labour Markets in Ethiopia", Nordiska Africainstitutet, Sweden, 2005 or under: http://www.nai.uu.se/publications/download.html/91-7106-526-1.pdf?id=25095, Lire, E in, "Child Labor and Schooling Decisions in Urban and Rural Areas: Comparative Evidence from Nepal, Peru, and Zimbabwe" by World Development, 33(3), 455-480, 2005. Cockburn, J. and Dostie, B. in, "Child Work and Schooling: The Role of Household Asset Profiles and Poverty in Rural Ethiopia" by Journal of African Economies, February, 1-45, 2007. Abebaw, D, Delelegn, A. and A. Assefa in, "Determinants of Child Schooling Progress in Rural Ethiopia" 2007 under http://www.gdnet.org/middle.php?oid=237&zone=docs& action=doc&doc=11814 Gitter, S. R. and Barham, B. L. in, "Credit, Natural Disas-

those which have completed their primary education, they are mostly out of unemployment and have also a facilitated access to public job at lower level than the rest, particularly in the rural areas than in the city.

For those with completed secondary education, they are definitively out of unemployed labor force especially in private and also in informal sector where the wages are higher than in public sector. Secondary educated, if they are employed in public sector, then at the lower middle management service. For those with tertiary education, best educated, if they are not self-employed (i.e. medicine, pharmacology, other production of goods and services) most of them are in public administration with a high income.

Mass education is a source of fear by the ruling elite, because education facilities the access to information, brings the capacity to understand the public affairs, to struggle for own right and participation, to control the politician and to have a clear view on governance. Furthermore, education is the vector to organize people and to involve them in political as economic activities. Mass-education redirects the national wealth to each citizen. As far as the ruling elite are obliged to invest in education, they tend to a free but surely a poor quality of public education. It is a strategic decision to early turn down to political and economic opposition[389].

Although in West Africa, most of the countries, in Benin for instance since few years have a free primary education at public school, there is a great difference between rural and urban areas. This difference is greater on the extent of educational inequality and attainment levels. Poverty and education level of the parents increase this difference because, on the one hand, by attaining school, children are no more able to take in charge a part of the family income.

On the other hand, if they do provide their part of the family income, children are no more able to follow their study, so then, they are most likely to perform poorly and drop out[390].

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ters, Coffee, and Educational Attainment in Rural Honduras" by World Development, vol. 35, no. 3, pp. 498-511, 2007.

389 See Economic Analysis of Education Interventions by the World Bank and Frankema, E and Jutta Bolt in, "Measuring and Analysing Educational Inequality: The Distribution of Grade Enrolment Rates in Latin America and Sub-Saharan Africa" 2006. Or under: University of Groningen, Groningen Growth and Development Centre, http://www.ggdc.net/pub/gd86.pdf.

390 Quoted by Alabi from Lloyd, C. B. and Hewett in, "Universal primary schooling in Sub-Saharan Africa: is gender equity enough?", Paper presented at the international conference,

"Apparently the low levels of attainment in Africa influence income inequality mainly because of the barriers it poses to political and social reforms inhibiting the redistribution of income and resources. The impact of educational inequality on the distribution of direct income-generating capacities (i.e. human capital) only plays a modest role"[391].

4.2.4.5 Employment and Demands in Benin

At the macroeconomic level, Benin has in 1999 Gross Domestic Product per capita of around 240,000 CFA francs, or $ 400. The current growth rate is around 5 to 6 % per year and if this rhythm continues for the next ten years, GDP would reach in 2010 some 330,000 CFA francs of 1999 (equivalent 550 U.S. $ 1999). As a result, Benin remains in the group of countries with relatively low incomes. We can therefore anticipate that, despite inevitable changes in the structure of the economy, this dual structure will remain. The vast majority of the workforce will always be dedicated to agriculture and informal activities while only a small minority in the work wage sector of the modern economy. It is estimated[392] that some 60 % of the labor force works in agriculture and 32 % in services, leaving about 8 % for industry.

Salaried jobs hardly exist in agriculture (probably less than or tiny more than 1,000 jobs over a million agricultural workers), and the vast majority of workers employed in services and industry are employed in nature in the Informal Sector. In all, the modern employment does perhaps 80,000, or about ±5 % of the workforce employed.

The public sector employs approximately half of them despite the difficulties of recruitment in this sector as part of structural adjustment; it is now likely that the potential for recruitment will gradually improve. However, thanks to the development of private sector, employment opportunities will improve in the coming years in Benin. However, it should be noticed that, outside the civil service, the structure of employment in the modern sector is characterized by low utilization of highly qualified personnel.

"Social Policies and Human Rights for Children and Women: Achieving and Monitoring the Millennium Development Goals", April 28-30, p. 14, 2004.

391 Ibid., Alabi.

392 This is an estimate of the ministry of Employment. As we know, it is very difficult to trust such data.

It is estimated that the senior and middle management occupy only about 10 % of employees in private enterprises, which leads to estimate that in Benin, the stock of these jobs is probably at its best around 5,000 people. We do not really know the dynamics of job creation, but the scarcity of the stock led to believe that in this sector, the annual number of jobs available (net creation and renewal) is very limited and probably less than 500 per year.

Given the duality of the economy (traditional and modern), the objective of education is to respond properly in quantity and quality to the demands of these two sectors. In the context of poverty reduction, we know that a key ingredient for future improvements is the acceleration of economic growth. It follows that the strategy of education can only be within the framework of the two following issues:

a) Organization of the system to promote national economic growth;

b) to target actions to enable the poor and the most-poor to have the minimum assets required to benefit from new opportunities, so then to escape poverty.

These two goals should not be perceived as contradictory and there are realistic opportunities to develop strategies that can contribute to their joint achievement. It is important for this purpose to adopt a sectorial approach and find the general equilibrium that will meet the demands of human capital in traditional and modern sector of the economy.

To meet the demands of the informal economy; in general, all studies in this case converge to the assumption that: Education improves the lives of individuals and their families (income, education, nutrition and health status). These studies often underline the fact that the overall impact on girls is more pronounced. Furthermore, although the directly productive effects are important, we must not neglect the social effects.

Thus, L. Summers (1991) shows, on well-established empirical basis, that the effects of primary education for girls in the health field would be sufficient by themselves to justify that all the girls must complete primary schooling. He also states that the resources used for primary education for girls have on certain health indicators, a greater impact than health expenditures themselves.

On more strictly economic models of growth in the medium term (which actually incorporate the economic and social effects) underline that. For the countries at the level of Benin's development, primary education is an investment

whose social profitability is the strongest (Mingat and Suchaut, 2000). The same study also shows that the impact of higher education on economic growth is generally negative. The reason is that, many low-income countries such as Benin have developed a higher education so then, producing too many graduates relative to the absorption capacity of the labour market, while leaving the quality by side under the pressure of financial constraints which is incompatible with enrolment.

We emphasize again that the high profitability of primary emerged out of the international comparative analysis, international benchmarking where G. Psacharopoulos used the methodology of social rates of return from education.

4.2.4.6 Demands of Human Capital in the Modern Economy of Benin

If basic education is a good investment to be done for all progress of the agricultural and informal, higher education and technical and vocational training are for an increase in the modern sector, but still critical investments. Essentially because development of the modern sector plays a decisive role in the strategy of economic growth and because failures in the production of highly skilled human capital could lead to bottlenecks and prevent industry from developing properly. However, it appears that the production of human capital, in both quantity and quality, must be adjusted, based on requests from the job market for the development of the modern sector of the economy. To meet the demands of the economy, the production of human capital, trained in technical and higher education, should be organized. Two basis mechanisms can achieve this: a type of administrative control by the quantities presupposes that the ministry has implemented

a) a fine monitoring system of the labor market, able to identify, in quantity and quality with relevance, the market demands;

b) a device that would allow access to education on the basis of obtained information; and a broadly regulation by market mechanisms: *prices,* that would correspond to a system in which:

- further studies would be subject to individual financial contribution, substantial enough to induce the recipient to choose on the labor market, the most promising path for effective return on their investment or force them to desist from studies in a particular discipline;

- the training providers would be motivated to "get clients," which would make them ipso facto to implement the required training on the job market.

4.2.4.7 Priorities for Sectorial Strategy: A Reflexion

In the case of Benin, schooling decisions and resource allocations are far from the optimum – hence new arbitration will probably be considered.

– At the primary level, we find that only 40 % of students in the same age-class entering primary school push their education until CM2 and that numbers fall down to only 27 % for girls. Significant improvements are possible with large gains in efficiency and equity in labour productivity in both: the informal and formal sector. In addition to the completion of a successful complete primary education accessible to those who are currently disadvantaged, the poorest of the population, is absolutely in the context of poverty reduction.

– In higher education, opinions may differ depending on whether one considers the number of registered students (>16,000 students) or that of graduates (approximately 1,000 per year). The striking disparity of these two amounts is partly due to the sharp increase in enrolment in recent years, but especially to the (too) high incidence of dropouts and repeaters in-course of study. Moreover, despite the low capacity of the institution to produce graduates, the available data indicate very serious employment difficulties.

This situation leads to a double waste of public money, first because of so many dropouts and repeaters in graduate cycle, on the other hand, because the graduates cannot effectively use their abilities in productive jobs according to the skills that their education is supposed to have taught them. The causes of this situation are probably many (economic, social, industrial, planning failures, etc.), but it is certain that the absence of regulatory mechanisms in access to the system leads to a very bad trade-off between quantity and quality.

4.3 Income Conditioning Education

4.3.1 Direct Cost

These costs include the private and the public aspects of the costs. In the private, we have to list direct and opportunity cost, which mean: tuition fees[393],

[393] Actually in Benin, primary public schools are free of fee, but the quality is far from a comparison with the private school with charges (fees and other charges).

school learning materials, transportation, food, uniform, textbooks, etc. With some 600-700,- $ GDP per Capita, these costs amount is about 5.000,- to 20.000,- CFAF per month per child (around 10-40,-$). It is a huge amount in the household budget. It is already clear that, although primary public schools are free, it may be hard for a household to send children at school. Therefore, communities (public) interfere, come in action. Once again, it is an opportunity to exacerbate[394] inequalities and inequities because, rich communities are better off and can afford payments more easily than the poor ones.

4.3.2 Indirect Cost

These costs are measured in time and loss of earning. Under time is to understand the time spend by attending school. This time, from the pre-school up to tertiary education is summarized into 17-20 years. The student is not producing income but acquiring knowledge, while the student is still producing cost. At the same time, there is a loss of income, at least 10 to 20 years can be given for the interval in which the student is not economically active. For a wealthy family, it is not a problem; it becomes hard to sustain such a situation. In a poor family, many factors delay or even cancel education. Added to the already heavy direct costs; economic (forgone income), social (divorced, widow), gender (male or female) tradition, area of living, illiteracy, and family structure (household work, sybilling[395] care, family size, parents' health status) are the next handicaps.

All those factors are at the origin of the abandon or the cancel of education in family budget. Each of the factors is a source of costs for the family. The sum of all these costs is heavier than the direct costs.

4.4 Strengthening Education

4.4.1 Equity of the System

In this case, the equity analysis on the basis of household survey data (EMICOV 2010) and school statistics will integrate the social, gender, environment, urban/rural and county dimension. This analysis will lead us to very serious and growing disparities from kindergarten to higher levels of education.

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394 See Temesgen Kifle in, "Return to and demand for Education in Eritrea and the Role of International Remittances", Dissertation by the University of Bremen, 2003, p. 91.

395 Same mother and same father.

The results[396] are on average 1 to 10, if not, more in many ways. The logarithm[397] of ratios of educational opportunities[398] likely varies with different educational levels and different social dimensions[399]. These points explain clearly why the educational system in Benin is not pro poor or progressive oriented.

4.4.2 The Administrative and Educational Management of the System

Additional malfunctions that affect the system performance are: the failure of piloting/monitoring devices and the weakness of the allocation of human and material resources.

Failures of piloting/monitoring are mainly in the organization which does not have communication and coordination mechanisms to ensure consistent management of the system. These are followed by slowness in decision-making processes and administrative procedures; lack of transparency in the management of resources; the strong politicization of the system; the demotivating work environment; and paradoxically the too strong level of deconcentration/decentralization.

Regarding human resources, we should choice as allocation criteria[400] (R^2) of teachers/student population. Globally **R^2** in primary schools has hardly im-

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396 See table 16: Social distribution of the population of 5-24 year-olds by educational status, 2010 and table 17: logarithm of link of opportunities by level of education and various social dimensions in the PDDS, Actualized Phase 3; especially the sector framework for monitoring performance, based on survey data EMICOV 2010, pp. 43-44.

397 The logarithm of link of Opportunities/Odds Ratios are calculated by linking: – The percentage of enrolment to the part of the corresponding category in the overall population of 5-24 years (thus obtaining the coefficients of representation of different social groups), then; – Coefficients of relative representativeness of the favored category to the disadvantaged category within each social dimension.

398 The link of Opportunities/odds ratio was considered by its logarithm particularly in the aim to allow easier reading of results. For example, this logarithm of the group X with respect to the category Y equal to 0.2 in the high education means in return that the group X has 20 % more probability than category Y to access to high education.

399 Regarding the link of Opportunities/odds ratio by level of wealth, we can make two objections, a) that opposing the educational situation of young people from the richest two quintiles to those of the poorest two quintiles and b) that, necessarily more contrasted, opposing the two extreme quintiles. It is the same with regard to the link of Opportunities/odds ratio according to the environment (urban/rural) as that with regard to the departments concerned for instance: opposition Littoral Atlantic and Ouémé (here called East Coast), with the departments of Alibori of Borgou and Atacora (called North).

400 This is calculated by a coefficient of determination (R^2 risk for the deployment of the teachers) that expresses the degree of consistency/coherency between the endowment/staff of teachers and the number of schools. The higher the coefficient, the greater the correspondence is strong. See Resen 2011 from the database of the Ministry of Primary Education and the Secondary.

proved from only 0.46 in 2007 to 0.48 in 2011. The misallocation and iniquity of teacher is manifestly about their qualifications. Community primary teachers are in a unique situation. Since 2008, despite the ban on the recruitment of community and/or contract teachers, the fact remains that the primary sub-sector in 2012, contains about 5,000 teachers with various status from community and other so called "cases not declared". Student-teacher ratios at the secondary level are compared to the primary, good for learning.

The high prevalence of part-time teachers (contractors) generates a serious quality and time problem (deficit[401] of hours 20 %). In the entire education system, the deficit is estimated at 14 % or 3,040 teachers for 55000 hours of lessons in total. As previously seen in the details of the DPP/MEMP data, about 10 % of students do not have textbooks to support their learning. According to municipalities, localities, regions and/or departments; between 10 % and 30 % of students have no seats for example. In this education system, the inconsistency so the inadequate of allocation of resources seriously influences the study conditions of the students.

As the main strengths[402] and weaknesses of the educative system, despite notable successes, the system is still suffering from major weaknesses in management and quality.

4.5 Policy Frameworks

The diagnosis of the education system of August 2012 includes the major policies[403] and macro financial framework and the estimated gap to be bridged.

4.5.1 Objectives

From 2007 to 2011, Benin has enjoyed sustained and strong growth at all levels over the past five years. The gross enrolment ratio (GER/TBS) rose:

- Kindergarten from 4.6 to 11.6 %
- Primary from 101.0 to 114.5 %
- The first secondary cycle from 54.6 to 62.9 %
- Secondary 2nd cycle from 19 to 32.6 %.

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401 Deficit that reached 50 % in the absence of the contractors employees.

402 Detailed explanation can be seen under table 20: Strengths and Weaknesses of the Sector in the PDDS, Actualized Phase 3.

403 PDDS Actualized Phase 3, pp. 53-58.

For technical education and vocational training the number of students increased from 430 to 659 per 100 000 inhabitants, whereas in the sub-region, the average is 292[404].

In higher education, the number of students increased from 849 to 107,9[405] for 100,000 inhabitants. Between 2003 and 2010, about 200,000 adults were enroled in alphabetization institutions. Despite these significant efforts, serious problems of social dialogue, quality, retention and regional disparities begin to default these positive results. In spite of the various and wide disparities[406] mentioned above; population growth and social demands draw a strong profile for children's enrolment. An alternative supply of schooling will be established for disadvantaged children[407] or with specific needs as well as for non-enroled or early school leaver's teenagers.

Albeit the level reached, every child who does not complete its cycle of study is a waste of financial resources and time. There are disparities/differences between students enroled in public and those in private. These unfavorable results of the public are related to non-compliance of school time due to regular strikes and absenteeism of teachers.In secondary education, scientific series/curricula such as "C, D"[408] for example are near in extinction. This is a serious case which subsequently can negatively positioning Benin in higher education so in the international scientific competitiveness as in the acquisition of technological know-how with high value added. In technical education and vocational training, insufficiency of professional practice (due to lack of equipment and real estate) and the application of the "patchwork"[409] are not the way to develop skills. The dual training system as in Germany is still in the infant state.

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404 See "Pôle de Dakar" 2006, "Rapport d'état du système éducatif béninois,, „Pôle de Dakar" is a department of UNESCO as the International Institute for Education Planning (IIEP – UNESCO). It is a center of expertise in education and training. It is a platform of expertise for effective governance of education in Africa. It is also a regional branch, established jointly by France and the United Nations Development Program (UNDP). Countries to be compared: Burkina Faso, Comoros, Côte d'Ivoire, Gambia, Ghana, Guinea-Bissau, Ken-ya, Lesotho, Mali, Mauritania, Uganda, Rwanda, Senegal, Tanzania, Chad, Togo. See also http://unesdoc.unesco.org/images/0022/002297/229778F.pdf

405 More than twice the African average which is around 500.

406 Gender, environment (urban or rural), the level of wealth and geographical location (department) of the parents.

407 In 2012 estimated at about 700,000 children.

408 "C" are specialised in Mathematics, Physic and Chemestry, "D" added biology on it.

409 This course has a bitter taste, "Do It Yourself". Apprentices are not trained to find strategic solutions and expertise. They only and lonely repeat the learned. See table 21: Completion rates for the average Benin and comparator countries (from, "Pôle de Dakar" cited in PDDS Actualized Phase 3).

Corner stone for the proper functioning of the system is the control and monitoring of the system. Benin has many problems[410] in this matter which have to be resolved. To this end, the government has improved the social[411] dialog with teachers to at least eliminate the disturbance by regular cyclical strikes.

4.5.2 Major Orientations

Improving quality and retention

Despite the significant growth of access due to free enrolment in all subsectors, the focus is still put on the quality and retention. The main actions to improve quality are in order, focused on the real availability of adequate teaching materials and real estate, improving the qualification and supervision of teachers, strict compliance with the required study time, adequacy between opportunities of employment and the training need, exploitation of the educational know-how, and the gradual introduction of bilingual education.

The purpose of this approach is to effectively increase the proportion of students who can read, write and count. Furthermore, by reducing the repetition rate, it appears that the retention rate increases at least proportionately.

Improving management and control

At the central level, four departments/Ministries are simultaneously responsible for education. They require an adequate dispositive[412] of coordination and coherency of strategies and budgets.

To this end, we note that the deconcentration and decentralization of benefits/allocations, of personal/Human Resource management and the distribution of educational inputs have positively improved the entire system in a well-defined set of function, of competence and responsibility; accompanied by a meritocratic mechanism of sanctions i.e. positive and negative. In this context, the main actors are teachers, hence, the importance given to their management. Good management allows a good distribution of human resources, enhances the fairness, discourages absenteeism, the tenure and a better control of teachers. At regional, otherwise departmental level, a dispositive of recruitment on job and of strategy against situation of educational discontinuity will be intro-

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410 The problems were previously cleared in previous passages in this work.
411 TISSA: Teacher Training Initiative for Sub Saharian Africa.
412 See the quality, flow control, rational management of resources and results, etc.

duced to stabilize the system while giving the actors some career and salaries perspectives.

Flow regulation by diversifying the supply of education

Training capacity and later of employment for school leavers from primary to tertiary, in the so-called classical education are too limited. Unfortunately, this training has a monopoly; despite the fact that Benin has an important lack of technical and professional employees. To this end, a policy of diversification of supply in technical and vocational education and training (TVET) is developed and enforced as second priority sector after primary education in Benin. Higher education needs considerable efforts in its flow control, the development of short courses and their distribution in line with the needs of the labour market. Benin must avoid the yearly production of unemployed 20 % of graduates.

4.6 Methods of Analysis of School Data

a) The Transversal method type I, is to use data directly from school statistics and calculate, in each course, the ratio of students' non-repeaters with children of similar age in the country. The reliability is based solely on the demographics data – which quality is suspect.

b) The Transversal method type II, to measure retention during the cycle. But in a country like Benin, cohort size increases significantly from year to year (about 21 % in 6 years) at the same time as the access rate to CI improve (71 to 86, 5 %). The figures obtained with this method should therefore be considered as underestimates of reality.

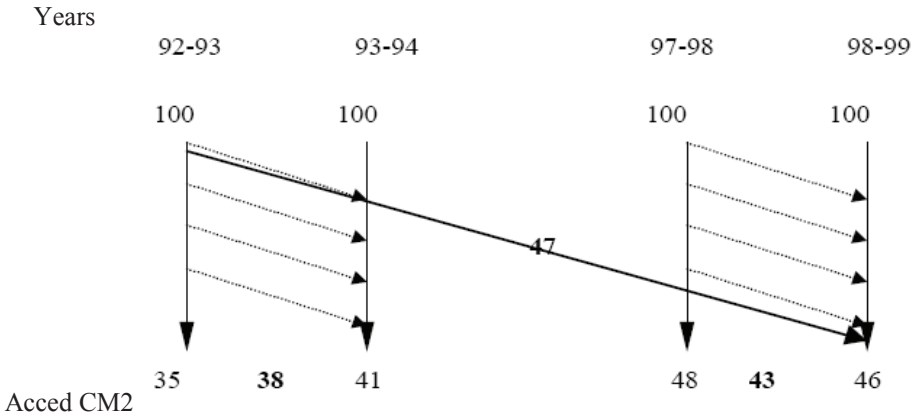
c) It is possible to eliminate the influence of cohort size by the use of the method of adjustment factor taking into account that, due to the current growth rate of the cohort of children in these age groups, enrolment cohorts of CIs are on average 21 % higher than those cohorts of CM2. We then get figures of around 31 % in 1992-93, 36 % in 1993-94, 45 % in 1997-98 and 44 % in 1998-99.

d) A method of quasi-longitudinal uses the number of non-repeaters in the various classes during two consecutive years.

Whatever the method used, these estimates converge to: the survival rate of pupils in primary education in Benin and it is very low. If we consider the methods 1 and 4 as the most satisfactory, the rate was only between 43 and 45 % for the period 1997-99. It should be noted that this low retention in the

primary does not seem a novel feature of the schools in Benin: in early 80's, 48 % – but for the years 1992-94 between 38 and 40 %, although a slight significant improvement has happened over the last five years.

Graphic 4: Survival Rates between the Acceding to CI (100) and Acced to CM2

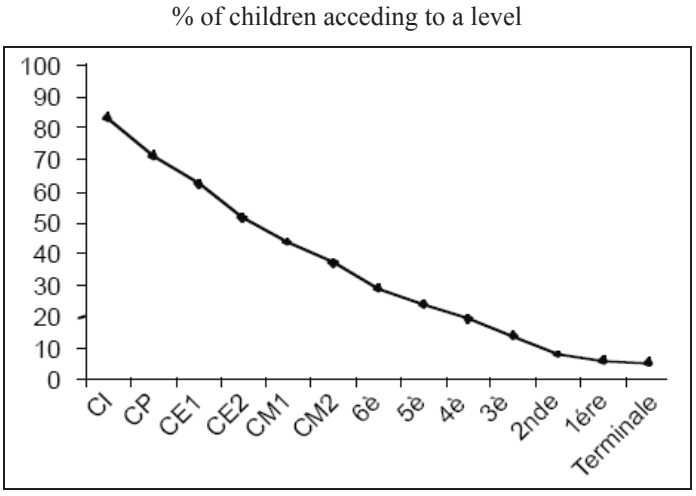


Source: MOE and World Bank 2002.

From the just presented numbers, it is possible to derive *information on the survival of students* in each of the three cycles considered as well as on the transition between cycles. The table below summarizes the main result:

- Primary retention [CI – CM2] 45 %
- Transition rate primary/secondary 1st cycle [CM2 – 6th] 75 %
- Retention rate first secondary [6th-3rd] 49 %
- Transition rate 1st – 2nd cycle secondary [3rd – 2nd] 57 %
- Retention rate 2nd cycle secondary [2nd – Terminale] 71 %

Graphic 5: Enrolment Profile in Primary and Secondary Schools, 1998-1999



Source: MOE and World Bank 2002.

We note that the rate of 45 % survival (retention) in the primary is very low. To locate Benin in the sub region, in 1999 the retention rate in primary education of Mauritania is estimated at 55 %, in Niger and in 1998 in Burkina Faso in 1999, the rate is 60 % and in Guinea 1999, 71 %.

Benin is very late in the field of student retention in primary education and it is one of the least effective of the sub-region. Much remains to be done and to see 55 % of students drop out during the cycle remains a major concern, especially in the context of the fight against poverty.

4.7 Econometric Approach of Efficiency at the Primary Level

We have to make a choice at this step. Will be retained here, to avoid observations on a small number of students, only schools presenting at least ten students in the examination; 1591 schools are in this case.

In this sample, the average success rate is 66 % (with a very open range, 5 to 100 %). 49 % of schools are located in urban areas, 51 % in rural areas, and the average number of pupils per teacher is 60 (25 to over 150 according to the school). On average, 34 % of teachers are professional teachers, but again, variability is high, even extreme: from 0 to 100 %. The gap of variation from one school to another is the same as regards women. It represents an average of 25 % of the staff of teachers, as for classrooms built “hard concret” 74 % on average, but 0 % (all classrooms in the school are in local materials) to 100 % (all are in concret). There is also information on the possible existence of a well, drinking water, latrines and electricity. Here too, we encounter variations from one school to another, from the absence of all these elements to the presence of each of them.

We can then, in the context of a multivariate econometric modeling, set against the pass rate for the graduation examination in each primary school with the resources and components locally implemented. The results of this analysis are generally quite disappointing because, the variables taken here into account do not report, for all them, but only for a very small share – 6 % – of the variation between schools in rates of passing the examination. Of course, one can argue for insufficiently precise measure of the explanatory variables, and can also say that we should have done better research to determine the most appropriate econometric specification. That is true but a little ridiculous for a country such

as Benin with chronic data lack. Indeed, we have the main variables that directly affect the operating unit cost of schooling. We find that these variables have at total a minimal impact on the obtained result, even if the success rate of the final primary examination (CEPE) is less than the average score in a standardized test.

That the proportion of explanatory variable is so low means that, the way resources are transformed into results, plays a much more important role than mobilized resources. This result, which may be surprising, however, is in line with observations made in most African countries. If it is relevant to mobilize additional resources to improve the quality of academic processes, what at the end are ultimately needed are: academic achievement and pupil learning.

The power of the impact on the statistical chances of success is summarized in table 21. It presents the results of another econometric model which compares an indicator of retention at the school level (ratio[413] of the number of new entrants CM2 and CI) with the characteristic features available in the school.

Table 17: Influence of some Characteristics of Schools on Passing the Final Examination of Primary School and the Retention Indicator during the Cycle

Characteristics	Passing the Final Examination of Primary	Retention Indicator during Cycle
Rental urban/rural	+ 2 %*	+ 7 %***
Concret building/Local Materials	+ 5 %**	+ 4 %*
School Facilities (water, toilets, ...)	0	0
Pupil/teacher	0	+10 pupils→ -1 %*
Teacher/Teacher Assistant	0	0
Teacher Woman/Man	+ 4 %*	+ 15 %***

Source: World Bank Calculation 2002 in Benin.
* Significant at 10 %, **Significant at 5 %, *** Significant at 1 %.

These numbers provide information primarily by controlling the influence of characteristics general variables of schools, schools located in urban areas obtain marginally better exam results (+2 %) than rural schools, but the difference is quite modest. For retention during the cycle, the indicator of urban-rural opposition indicates a difference much more noticeable on the quantitative aspect (+ 7 %) and highly significant at statistical level.

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[413] See World Bank Calculation 2002, p. 57.This ratio was calculated transversaly on the data of the school-year 1998-99. It would obviously have been better to calculate the indicator on longitudinal data and correct measurement of migration and changes of school during schooling (the schools in which the number of new entrants CM2 exceeded that of CI were removed from the sample analysis). For these reasons, one must keep in mind that the result of calculation gives an approximation of reality.

Concerning the school buildings and equipment usually available (wells, water, latrines, electricity), we see that the influences are relatively small: students enroled in schools whose buildings are "in concret" get ceteris paribus, higher success rates at the primary school exam by about 5 % than their counterparts enroled in a school built with local materials. The advantage of solid structures is reflected in the chances of retention in the current studies at primary level (+ 4 %). Contrary, the numbers indicate that by the equipment in wells, latrines, drinking water or electricity (characteristics considered separately or together in a global indicator) has no proven influence on the chances of students to remain in school during cycle or to pass the examination at the end of the cycle. This result does not necessarily encourage the restrictions of schools planning policy, but keep aware of the limited influence of these factors on the academic effective operating.

Finally, concerning teachers, the numbers indicate at first the very low impact[414] of pupil-teacher ratio on the chances of passing the examination at the end of primary school. The analysis performed on data of Benin, however, show a slight effect on pupil-teacher ratio indicator of student retention during the primary cycle, but the impact is still modest because a pupil-teacher ratio declined by 10 implies an increase of only 1 % of the index of retention.

In the case of Benin, recruitment of teachers with baccalaureate (or beyond) do not seem to bring more for students and such a costly recruitment does not fall within a cost-effective education policy, especially in the context of strong budgetary constraints the country faces. Otherwise, the teacher is a man or a woman seems to affect the operating of primary school. Women achieve better performance in general than men, the chances of students by female teachers to pass the final exam increase in average of about 4 %. By the final exam, this result is certainly not considerable; but it is especially in the area of student retention that the presence of female teachers seems to have the most positive consequences: the estimation model[415] used indicates that in comparable

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414 See observations of Mingat and Suchaut (2000), in their comparative study of African education systems in, "les systems éducatifs africains, une analyse économique comparative" by Pédagogies en Développement, De Boeck uUniversité, Behaghel and Coustere (2000), in their summary of program results PASEC of CONFEMEN.

415 See World Bank Calculation 2002 and also See "Skills Development in Sub-Saharan Africa", World Bank, Regional and Sectoral Studies, by Richard K. & Johanson Arvil V. Adams, The World Bank, Washington, DC, 2004.

schools, ceteris paribus, the retention rate is 15 % higher, when all teachers are women rather than men. The difference this time is quantitatively substantial and statistically very significant. The resulting Beninese data converges with the findings[416] of Mingat and Suchaut from international comparisons.

We must remember that the conclusions we reached result from locally available data, and not from specific surveys focused on the analysis of school quality and identification of factors affecting student learning. However, one must consider that the information thus obtained, approximate as they may be, can probably make a useful contribution to discussions on future education policy for Benin primary school.

4.8 Future and Potential Development of the Education System[417]

At the Pre-primary/Maternal Level

According to the letter of policy, "nursery education is a valuable asset in preparing children for success in primary school". With an increase in the enrolment rate of 4.6 % in 2007 to 11.2 % in 2011, the involvement of other stakeholders such as the private sector in the development of this sub-sector is still needed. This policy holds two corner stones: access and quality.

Improving access to answer questions of waking the child, increasing the capacity[418] and support to private initiatives.

Improved quality means improving staff skills among those leaving the public and private ENI, their pedagogic[419] supervision and to ensure the quality of care in early childhood.

This will be followed by the improvement of the quality of the infrastructure and the promotion of the well-being[420] in preschool environment.

Primary level has basically the same obligations: access and quality.

Improved access and retention is expressed by improving access targeted to reduce disparities. To this end, a series of active measures will be taken includ-

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416 See Mingat, A., and Suchaut, B. (2000): "Les systêmes éducatifs africains, une analyse économique comparative" by Pédagogies en Développement, De Boeck Université, Brussel/Belgium.

417 See also the arguments and analysis of PDDS Actualized, Phase 3; pp. 88-104.

418 The increase in capacity through the construction of 882 rooms and strengthening staff of animators per year of 227 animators.

419 The formalization of the use of national languages and adaptation programs in this direction.

420 Better health in preschool, taking into account the health and quality of school meals, constructions of 315 blocks of 2 latrines and installation of 200 water points in schools.

ing steps[421] of active resorption of gender and regions disparities, measures to support the integration of children with special needs; measures to increase the capacity with control of the unit cost of construction; measures of massive increase in the stock of teaching positions in the public from 2013 to 2015; policy measures targeting the reduction of repetition and helping students with difficulties; measures to increase student learning time; measures of rational allocation of resources.

Improved quality and equity implies in turn a list of shares substantive and quite imposing actions: improving training quality and quantity in the public Normal Teachers Schools (ENI); coaching and strengthened private ENI control; enhancing educational support for teachers and school managers through continuous training; harmonization and program review by the APC; targeted acquisition of basic skills in French and mathematics at an early classes; updating the tools and materials evaluation of learning from the teachers; streamlining the management and allocation of personnel; the gradual introduction of national languages in the curriculum on the basis of experiments and devices improved in the sub-region; support to communal instances to acquire teaching materials and ensuring their availability in schools; strengthening of hygiene and health activities in schools; revision and improvement of a system of regular assessment of learning; building consensus on skills from the beginning until the end of the cycle; improve and secure learning environment by introducing fun activities and promotion of children's rights[422].

General secondary level

General Secondary Education (ESG) is required to qualitatively prepare students access to higher education, technical education or vocational training. It establishes a continuum between primary and the 6th Form which access will increase from 508,775 in 2010 to 736,491 in 2020 with a survival/retention rate of 67.9 % in 2010 to 74 % in 2015 and up to 80 % in 2020; and a percentage of repeaters 23.2 % in 2010 to 19.1 % in 2015 and then to 15 % in 2020. We note a progressive decrease in the pupil/teacher ratio of 52.4 in 2010 to 51.2 in 2015

[421] See PDDS Actualized Phase 3, p. 89
[422] See PDDS Actualized Phase 3, p. 90.

and 50 in 2020. The main objectives in the education policy letter can be summarized as follows[423]:

– *Improved access and retention in secondary 1st cycle*

In response to high primary GER (TBS) and retention of pupils until CM2 Form, the secondary 1st cycle must have an increased capacity with the recruitment of 728 APE and ACE teachers annually and a stronger partnership public/private through an amount equivalent to 10 % of the unit cost of the public from 2014. At the same time, there will be an optimization of flow management and proposed alternative prior to curriculum for general education. To this, will be added the reduction in repetition rates and measures of support to student in difficulties.

– *Improved quality and equity*

Involves the efficient implementation of programs based on competency-based approach for teachers in the aim of monitoring their educational support. It is especially clear that the decrease of the contract teachers will ensure quality education in the ESG parallel to improvement of the quality of teaching and administrative framework, and strengthening educational inspections and staff training. Differences in gender will be strictly decreased.

To that end, improving enrolment and retention of girls in the recruitment and retention of female teachers in rural areas would naturally accompanied the exemption of school fees for girls in general secondary 1st cycle accompanied with the dissemination of legal texts on the protection of girls. It would also bring the attention on environment or well-being in schools i.e. sports facilities, infirmaries, water points, latrines, electrification, canteen, etc. and the introduction of incentives for the development of science pathway in this case the so called series C and D.

Technical and Vocational Level

TVE will face a constant growth of students flow from the first cycle of secondary general and also face a proper organization and better adaptation of the supply to economic and social realities of the country. It will facilitate the integration of young people into the world of work by offering them sustainable

[423] See PDDS Present Phase 3, p. 93.

and participatory economic development career prospects. To this end, measures are planned.

– *Improved access, retention and diversification of supply*

TVE is geared by the needs and demands of the formal and informal sectors. The TVE target the adequacy of the ratio training/employment market; quantitative and qualitative improvement of reception and diversification of pathways; development and legalization of dual apprenticeship[424]; the improvement of devices (furniture, real estate and resources) for professional training; the establishment of an information and educational guidance on the TVE system; strengthening public/private partnership.

– *Improved quality and equity*[425] is directed to a recruitment of 161 teachers[426] for triennial? 2013-15; development assessment (evaluation system) and certification; strengthening the educational support of all teaching body[427]; promoting the education of girls; the development and availability of adapted equipment and teaching materials; professionalization of initial training by redefining the hourly volumes; program content and systematization of internships; modernization of educational provision by the systematic introduction of digital and new technologies in training in certain fields; strengthening control in schools through the development of management tools and strengthening the training of managerial personnel; strengthening of the initial training and educational activity; the implementation of a policy to promote girls in the agricultural and industrial sectors.

– *Improved external efficiency*[428] in TVE aims to facilitate the integration of young people into the world of working by providing sustainable and participatory economic development career prospects. In doing so, the TVE obtained as result its own external efficiency. The process will involve the establishment of an information system on the integration and retraining opportunities; offering opportunities for graduates; a precise analysis of training needs by sector; the

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424 This is the very popular system in the FRG between businesses/Garage and schools, which makes the body of German business professional grade.

425 See PDDS Actualized Phase 3, p. 93.

426 Indeed, it is question of recruitment of 88 teachers for technical education and vocational training for 73.

427 Teachers and master craftsmen.

428 See PDDS Present Phase 3, p. 96.

development of training "tailored" for varying periods; the monitoring of young people into the workplace.

Higher Education and Scientific Research Level

This level of education should moreover ensure improved efficiency and effectiveness for the economic and social development, and scientific research. It is expected that the number of students will increase to over 180,000 in 2015 so at the rate of 1769 students per 100 000 inhabitants. Regulating the flow of students proves to be a necessity. The strategies[429] provided for this purpose target the following aspects:

– *Improved quality and equity* that require especially:

- Improvement of the institutional framework of the educational management and quality assurance;
- The generalization of the system of degrees Bachelor-Master-Doctorate (LMD);
- The development and implementation of a master-plan requalification and training throughout life time;
- An increase in teachers' stock with improving their qualification by strengthening their ongoing training and educational support;
- Promotion of new technologies in programs through the development of open and distance learning, the development of digital platforms and e-learning resources;
- Strengthening the professionalization of training to improve the adequacy employment/training and thus enhance the external efficiency;
- Reorienting policy of granting academic benefits to vulnerable populations and growth pathways;
- The establishment of a system for tracking graduates;
- The promotion of girls' enrolment in professionalized courses;
- Improving quality through streamlining the supply and flow control;
- Strengthening the international academic cooperation and with business;
- The promotion of vocational training of short duration and the establishment of a national directory of certifications of short courses;

[429] See PDDS Actualized Phase 3, pp. 98-99.

- The establishment of a cross-cutting program developing the taste and skills for entrepreneurship and self-employment.

The promotion of scientific research for national development requires:

- Strengthening the institutional framework of the national research system;
- Promotion of priority research programs oriented toward development centers;
- Strengthening the legal framework for the protection of intellectual property;
- Strengthening the mechanism utilizing the results of research;
- Improving the mechanisms monitoring/evaluation of the National System for Research and Innovation (SNRI).

Literacy and Adult Education Level

Literacy strategy is based on the reduction of poverty, social and civic integration. The operating methodology is the "make-do" that requires massive involvement of NGOs in literacy campaigns. The introduction of this strategy implies[430]:

- Mobilization of all operators in promoting literacy and coordination of activities of the various stakeholders;
- Organizational efficiency and the coupling of literacy to the formal education system in order to institutionalize it;
- The implementation of an integrated literacy program;
- Intensification of applied linguistic research to national languages;
- Recruitment, capacity building of staff and training of literacy and adult education staff.

The PDDSE wants to ensure equitable access to literacy programs with rigor against the discrimination of women and girls during recruitment.

Management and control of the system

The control system wants to belong to a real rational and equitable management of resources based on the principles of Results Based Management (RBM). Through a powerful device management, monitoring, control, mastery

[430] See PDDS Present Phase 3, pp. 101-102.

of flows, optimum of allocation and evaluation; harmonizes the system within the sector the different elements of policy[431].

4.9 Conclusion and Recommendations

At the end of this chapter, several findings[432] on the state of the education and PDDSE in Benin are required. At the beginning, the program of the education in Benin is at Sub-Saharan scale a relevant model of action and coherent with the sector development assumptions and objectives set by the government. The Beninese government has made significant efforts to support the plan of the education. Efforts are noteworthy example of free nursery and primary education, free secondary education for female students, the conversion of contract teachers in the public service, the financial value of the teaching function, various bonuses etc.

These are important efforts, but they greatly disturb the forecasts of the Plan and more, dig more or less significant differences between results and objectives. The lack of consultation, communication and synergy between 4 line ministries of education also worsen the results of the plan. It is quite surprising that by the lack of communication and synergy, ministries are unaware of the existence and/or the amount of resources (financial, human and material resources and their efficient processing as output) allocated to them. This is due to the slowness and bureaucracy that impede the efficiency of the financing and turnover system.

Moreover, socioeconomic inequalities i.e. well-being inequality continues to grow by prioritizing public resources to the most privileged. Despite these efforts, two major weaknesses were to be noted. It is the lack of technical mastery of flows at all levels of the educational structure and the medium and long term financial sustainability plan in its current dynamism. For its part, charges represent by teachers' salaries are forward seriously handicaps in the investment in education. The government's strategy is to opt for quality renewal of

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[431] Improving the quality of learning; strengthening coordination through dynamic monitoring structures; the use of instruments and management techniques, control and evaluation for modern changes in daily practices of better governance.

[432] See "Evaluation à mi-parcours du Plan décennal de développement du secteur de l'éducation du Bénin, (PDDSE 2006-2015); Évaluation conjointe Ministère danois des Affaires étrangères (DANIDA); Agence Française de Développement (AFD), Février 2012" at https://www.oecd.org/countries/benin/49694252.pdf.

the internal and external efficiency of the system. It is a balanced control between supply and demand. Moreover, it should set realistic goals and a causal relationship that at end of period, actual results are consistent with the objectives and targets set for each year until at least 2015.

Recommendations

In the future[433], it is important to pay special attention to secondary education, technical and vocational training, literacy and adult education, to conduct/monitor an intra-sectoral balance between the segments of education. To this end, the line ministries must allocate adequate resources for the proper functioning of their structures from the central level down to training institutions, high schools and colleges allover the country.

Although existing in the form and substance, it would make use and strengthen budgeting capabilities and capacities in a logical framework, to make the choice and calculation of indicators, to develop performance reporting, as also management document, to build consumption credit plans, to design absorption plans of budgetary allocations, etc.

To this should be added a mandatory public procurement code to thwart abuse, cronyism and corruption that prevail for decades. Similarly, we need to identify and solve problems and handicaps for the allocation and provision of resources. As well as to identify and solve problems and handicaps to equitable access to resources between all bodies and institutions from the departments/counties and municipalities, Ministries of Education, the central and deconcentrated and decentralized levels, etc. However, we can also, in details, recommend that work be undertaken to:

"– Fix the internal priority of actions to be taken at each level of the system;

– Provide personal and adequate operating budget with a specification and appropriate performance indicators;

– Reinvigorate and actually make functional the piloting bodies;

– Establish an ad hoc committee for the regulation of the education system flows;

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[433] See "Evaluation à mi-parcours du Plan décennal de développement du secteur de l'éducation du Bénin, (PDDSE 2006-2015); Évaluation conjointe Ministère danois des Affaires étrangères (DANIDA); Agence Française de Développement (AFD), Février 2012" at https://www.oecd.org/countries/benin/49694252.pdf.

– Strengthen the organizational audit;

– Develop a strategy for mobilizing and managing resources for future funding;

– Deploy an effective communication and synergy from the central to the de-concentrated and decentralized levels.

– Integrate and empower devolved and decentralized levels down to school directors"[434].

[434] Ibid.

Chapter V: The Weight of Employment for Education and Health

Introduction

As long as most services in Benin are paid and will be paid "out of pocket", employment as source of income will still be imperative. If people don't have an income, they will not be able to secure their health and their future through education!

This chapter can give the impression of being off-topic. In the paragraphs that follow, we will find that indeed, the job is of a major importance, almost vital at the present for the parents of pupils and for the future survival of the family.

First, we must return to the source: the education. In the globalized world, we know that the more educated a person is, the better is his salary. In Benin, this education is paid cash "out of pocket". Then, it is difficult for a country to have an adequate salary to the education. This forces job seekers to start businesses. A business that cannot compete with large transnational companies. To this, we should add the competition from the informal sector. The issue is to know how to promote employment for the poor and other discriminated such as women? Thus it comes to the efficient establishment of the employment, social aspects and finally recommendations for efficient policy. We must finally recognize that without a strong policy on employment producing income or generating revenues, policies and funding for the education and health will be very expensive and will not produce at the end the desired results.

1 Education –Working Poor – Gender and the Enterprises

1.1 Education for Employment

The literacy rate in a country is an indicator of the competitiveness, the comparative advantage level of the country in the high-value-added globalised economy. It means also to upgrade competitiveness by developing human capital for driving the technological complexity of the production process and to

create opportunities of income. At private level in Benin, *income* means the power to sustain and to develop health care, education and nutrition.

A well educated population should normally attract FDI? This human capital could compete at international level? If it is so, it would be hard for Benin to challenge Philippines, Vietnam, Thailand, or India because of the lack of this required Human Capital. Production unit for unskilled labour, in time, turn to be a technology intensive object with high productivity at lower costs[435] e.g. information technology in Bengalore/India. Even though, it is not more the country that is in competition, but the enterprises. The role of the country is only to provide the skilled labour force, adequate fiscal policy and environment. Based on such an argument and conditions, development is no longer linear e.g. development is widely uneven between the poor countries in *"no mercy"* challenges. In this context, SSA receives only a marginal part of the world wealth. They lack the technological skills and capabilities to compete in modern activities with the rest of the countries. Their main competitive advantages remain unprocessed natural resources or cheap unskilled labour[436].

All the countries in SSA have young labour surplus, some of them have natural resources e.g. Benin. It will be meaningful to target the skills needed for competitiveness[437] but once again, this target will be useless without a well-designed finance-, communication-, transport-network etc. strategic for competitiveness.

In general, the more "mature" an economy is; the higher the income level at which its competitiveness is achieved; the greater and more diversified is its human capital needs[438]. In another words, the skills level requirement is consequent to the existing industrial pattern, thereby reflects the development level of the country and its level of competitiveness. Data, programs and projects for the purposes of education/training and skill improvement can be produced by the *Industrial Training Board (ITB)* and the State Department of Education (MOE). Such institutions are the keys for any skill/education development of Human Capital. The ITB is an important source of skill development, because

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435 Compares to the costs in an OECD-country.

436 See "Competing with Labour: Skills and Competitiveness in Developing Countries", by Sanjaya Lall, Queen Elisabeth House, Oxford University; in Issues in Development-Discussion Paper no. 31, ILO-Geneva 1999.

437 Ibid.

438 Ibid.

it is more efficient and has many specific tasks. The costs are far lower because the training process is dual (learning by doing) plus the intern-school attainment, so then produces a high return on investment with double edge: on the one hand the process raises productivity and on the other hand, the prerequisites are fulfilled for new and higher technology for the employers. It is obvious that a pre-educated worker is a better learner, able to respond easier to the training and management capabilities and desires of the employers.

Further, the double use (for pupils at day time then for adults at night) of the external public and private training infra- and super-structure may surely deliver qualitative and quantitative training for all at lower costs. In order to evaluate the capacity, the potential resource of the country, it is useful to pay attention to the literacy rate and its impacts on technological shift. Without any kind of discrimination, it has to be found:

- The general literacy rate at working age, at least [5-6] years enrolment,
- The attendance for each group: 5-10, 11-15, 16-19, 20-25, over 25 years old,
- Their repartition in urban and rural area, formal and informal sector,
- Their branch: handcraft, classic education, technical or services.

In most poor countries, three sectors: natural resources, cash crops and/or manufacturing (labour intensive with low technology) are the main source of output growth. The trade cycle in the 3 sectors in some country as Benin explains the variation on employment and productivity overtime in equivalent proportion to the fluctuation. According to the available data on the 3 sectors, the quality of the labour absorption is the needed indicator for the policy-makers. By the way the exercise could bring some meaningful information's and data about income, focused branches, formalisation and/or informalisation of the economic activities even a change in family planning for the demographist and sociologist.

There is still a latent or active problem of discrimination. It begins with gender in parental contribution to education. We do know that gender discrimination is a far-reaching problem, particularly in poor countries with patriarchal system. Within that system, mothers favour the education of sons over daughters because of their greater dependence on children in their old age, and their expectation of greater monetary returns from investment in sons[439]. It does not matter

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[439] See "Genre et Developpement: Des pistes à suivre" by Thèrèse Locoh, Annie Labourie-Racapé, Christine Tichit, in Documents et Manuels du CEPED Nr. 5, CEPED-Paris,

if the woman is high educated or illiterate. As woman, she was and is a victim of discrimination, so then she perceives better than a man the strategic role of education and the future of educated children. Particularly, the women as single breadwinner and head of family are more ready than men to invest[440] more time and more money in their children. Field research has proved in Benin as other countries in SSA (Togo, Ghana for instance) that under such conditions, children are better educated with a higher level than those for non-educated rural and married family.

Again, this education depends on the availability of infrastructure (schools) and the facilities of attainment. Although, a woman is the head of the family, the gap between boys and girls, the difference in average years of school attainment is higher for boy in rural as in urban area. Educated parents (father and mother) are the guarantee to attend school. The chance of enrolment is higher in educated-mother and non-educated-father relation than in the inverse parental relation (non-educated-mother and educated-father). As conclusion, woman's education level is definitively a guaranty for children education and in future, for an educated human capital.

1.2 Characteristic related to Poverty, the Working Poor and other Discriminated

The main stream handicap in all poor countries is a kind of social apartheid, social exclusion which results in a discrimination, limited training, acute lack of development opportunities. In turn, these handicaps increase the rate of unemployment in long term with an economic decline. This exclusion hits at first and strongly the analphabetic women and their children follow with the illiterate males then the poor workers. The lost of human resource is big but not registered. The focus on this segment of people will cover the urban as the rural area. They are most represented in the informal sector and merely marginalized. There is one inverse proportional phenomenon, which has to be mentioned between, urban over crowed and rural decline and disparate density. This phenomenon is related to poverty and possibility of earning. By the time the informalisation rapidly increases in urban area e.g. street retails, caddy at

December 1996, p. 32. It is a pure socio-cultural costs-use-analysis and return on investment in informal retirement pension.

[440] It is obvious that heath, education, nutrition are a matter of time and money.

the taxi-station, helper in building etc. it is a direct translation of the poverty level in rural area, which implies migration of labor force into the urban area. For those *new comers*, the informalisation does have some relevant characteristics[441] such as subsistence work, wage and volunteer worker, casual worker. Although the conditions are adverse, people manage to sustain their living rather surviving, however even by begging, stealing or the sale of their own children in slavery.

Another point of attention is how women can easily slice into poverty. The field research has testified that the first barrier for women entry in formal sector is education[442] at least the secondary school level is required. Nevertheless, their opportunities are merely reduced with maternity e.g. number of children, whereas a supplement child does not modify the career plan of the men[443].

Further, the effects on women depend generally on the level of discrimination in the living area. This level varies between social, ethnic, religion, and wealth discrimination.

One should also retain the child labour in cultural unit of value[444]. Child labour is all over the world. The OECD one are working to earn them first Mont bike, motorcycle or to enjoy the update Nintendo Game by easily sale newspapers or distributing advertisement. The poor country one is working hart even in mines slavery to feed his own family.

In consistence it is absolutely not the same thing because the first is an option and the second is an obligation and atypical for a child. Our interest belongs to the second. A nation capacity to grow and to develop[445] is based on the adequate education and the good health of its young people. In most of the poor

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441 Subsistence worker refers to the self-consume of all production without any opportunity of exchange on the market. In rural area for instance, this includes the near landless and the micro and small farmers. Wage and volunteer worker. Volunteer may get a meal and/or housing in exchange to his labour force. The wageworker is day per day paid or seasonal paid. This schema refers to landless and/or illiterates. Casual worker reefers to those in the country, sometime educated but their wide major part are non-educated. They have rare possibility of employment in formal as in informal sector. They are only time to time employed.

442 Primary, it is said to protect women without education against the manager mobbing and sexual attack.

443 See "Genre, éducation et accès au premier emploi: le cas de la ville d'Abidjan", by Aka Kouamé and Abdoulaye Gueye; Les Dossiers du CEPED no. 56, Paris, Jan. 2000, p. 22.

444 Historically, child labour was forbidden for instance in XVII century in Germany because a 16 years old child is not more good shape enough for the army, his body is over used.

445 In this order, many field researches have already prove how AIDS can erode a full generation of labour force and the GDP of some countries.

countries, children are "Incomes", breadwinners for their families, contributors for the household so then scarifying their youth at the highest price for the society even in intolerable conditions such as unpaid sex trade.

The source of the problem is to be fund in the poverty e.g. income, education, nutrition, health and discrimination. Another time, children are overstressed in double way: labour and education[446]. This particular problem is complex and affords a wide range of reforms, institutions and law framework. As inputs to policy-designers, one can retain following points:

Simultaneous will find place:

- a public awareness through media and education campaign in localities even in the smallest village, schools and workplaces, putting the minimum age at 15-17 years,
- creating alternative income or securing an increasing income to the parents,
- criminalizing-hidden work (sex trade, domestic work) and young/very young children work (leather, ball, carpet manufacture),
- bounding the existing energy (government, unions, workers, NGOs etc.) to help drive children out of labour market, so then creating job opportunities for the adults.

At the national level:

The national authority will facilitate the implementation of laws, which severely condemn and punish any fault in regard of children. The criminalisation appears when the child labour is not a self-option of the child.

In rural area more than in urban area, in informal sector more than in formal one, children are breadwinners in household and later a source of retirement pension for their parents. The wealth of the aged parents corresponds to the number of living children particularly male children. This informal network is the main problem of family planning and to reduce or to cancel children labour in a poor country. Nevertheless, the focal points are still an alternative and secure income for the genitors, poverty alleviation and development.

The key way is to secure, to improve that everyone appreciates and agrees with the values and the use of the system/reforms, to create enough incentives to

[446] If they do have the cynical chance to attend school, their labour depends on: age, sex, number of children in recipient family, the profession of the adults in this family, their living standard etc.

upgrade the participation. As soon as each one understands that, a healthy and safety decent work corresponding to the development level of the country, the productivity increases rapidly as the rights to claim a fair part of growth in term of income. Each worker however promotes by him-/herself the implementation of such system.

People are agents and they have a look at their own transaction costs, they make sure that the "code of conduct on principles and values" is placed in its meaningful context.

As far as a country will afford to secure and sustain institutions and reforms which focus are to generate employment, social protection and organisation, the rights at work without any kind of discrimination etc.for the workers as a whole, then is the fulfilment of work within the elements of Basic Human Needs achieved.

1.3 Gap within Labour Force and Wage Discrepancy

Gap in this context means a particular difference within the labour, a difference between the dependent to work and the independent. By explaining the position of the "independents", one could in contrary deduces the position of the "dependents".

The concerned independents are the so-called *labour aristocracy or luxury*. Living in the urban area, they are middle or high skilled workers. They belong to the government clientele, which benefits are in good social services, high wage, stress-less working conditions and large civic amenities.

They are powerful enough to claim their fair part of growth and wealth included numerous rights and privileges. Generally, they are government officers. Another part of this aristocracy is the "young educated unemployed". This unemployment is a quasi-voluntary unemployment. Most of them belong to a wealthy family. If they do not migrate to some OECD countries or somewhere else, they take time to search for any kind of high paying jobs. They are not under pressure in contrast to those out of poor families and under pressure to win bread for the family. There is a kind of paradox effect[447]: The family wealth, by increasing the individual aspirations, can increase unemployment (aspirations effects), but at the same time, it reduces it (unemployment) by in-

[447] Revealed in "The Network Theory in Gender Approach"

creasing the opportunities offered to the same individuals (opportunities effects)[448]. This labour aristocracy built up a barrier of entry at their levels and a barrier to extend their privileges at the national level. It is a structural problem, which is a result of the organisation of the society. Field researches in Benin for instance have revealed that it is difficult to wait on or to try to move this workers' category in a national perspective in order to implement for all the same privileges because this category also belongs to the policy-makers and reforms-planners.

According to this schema, it is obvious that there is a wage discrepancy or disequilibria between workers in each intra-branch and sector (formal as informal). Sometime the discrepancy is so high and at the end leads to a social instability because policy-makers have ignored the existence of the disequilibria and/or mismanaged this situation. In this particular case, disequilibria does not only stem from economic phenomena. It also exists as a consequence of the power in influencing economic decision-making by certain socio-economic groups[449]. The schema can well be qualified.

As scientists try to identify, to quantify this discrepancy; so begin their frustrations. It begins with the collection of meaningful data which in turn can able the calculation of the poverty line, income distribution, nutrition e.g. Purchasing Power Parity (P.P.P. in $) to buy per day the required calories and proteins etc. The most biased data sources come from the informal sector (urban as rural), particularly from agriculture.

In agriculture, there is a variation of wage geographically and according to the crops/plants added to the seasonal/casual work. In this pattern, there is also a formal and/or informal off-farm income. As we have seen, the informal sector is the dominant one. It is however not possible to determine the multiplicity of wage, even to concentrate them in class/categories because most of the jobs are casual, without contract or other formal procedures. The quantity of the existing contract in Benin for instance is too marginal to bring any better view on the sector.

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[448] See "Employment Creation and Development Strategy" by David Turnham, OECD Development Center, Policy Brief no. 7, Paris 1993, p. 12.

[449] See "Economic and social policy synthesis programme, A socio-economic framework for basic needs planning: Kenya Case Study" by Rolf van der Hoeven, ILO, Working Paper 28, Geneva, June 1981, p. 1.3

Compared to the salaried (industry-, public-, private-sector) in formal sector (around ≤ 15 % of the total labour force); wage has to be seen in relation to inflation and trade cycle/conjuncture in order to identify on one hand an increase or a decrease of real wage, on the other hand to identify in which order there is an increase or decrease of the intra-wage discrepancy. National Income Accounts and/or Labour Force Surveys normally produce the available data, at least by Trade Unions because of the collective bargaining. Once again, information depends on the availability of the specific institutions to produce them.

1.4 Employment: Micro-, Small-, Medium-Enterprises vs. the Transnational Corporations

The micro-, small-, medium sized enterprises (MSME) are in the activities from labour intensive manufacturing to labour extensive multimedia high-tech, employing a single person to a dozen even more, from day/wage workers to be salaried, from secure income with social securities to very dangerous low productivity activities without social protection unit such as galvanisation for automobile industry or leather manufacture.

These enterprises could belong to a network of producers in a chain of formal as informal suppliers. Nevertheless, they are the main job creators; so then drain the most part of the national labour force, particularly from the formal sector.

A wide range of studies and field research in the last decades has highlighted the dynamic of the MSMEs. The result has put the weight on technology and techniques, micro-financing, training for developing entrepreneurship, the contribution of access to income, the possibilities to help them join the regulated (formal) economy through a regulatory framework such as fiscal, economic, social and legislative procedures. The MSMEs are in the poor countries the source of labour absorption and income providers. By Transnational corporations we mean industry and finance at the same time. Let us remind the warning of Klaus Schwab at the World Economic Forum at Davos: "… the forces of financial markets seem to be running amok, humbling governments, reducing the power of unions and other groups of civil society, creating a sense of extreme vulnerability for the individual confronted with forces and decision-making processes way beyond his reach".

None of the industrial Transcorporation will ever set up a plant in a poor country without a financial Transcorporation contribution. In the cortege of globalisation all of them lay their interests on opportunities in long term, provoking a run at the *bottom of discounts* between the poor countries. Therefore, none of them is ready to invest in the local needs but rather in cash-products e.g. export products with high value-added and/or with high-tech at discount production price. The plants are functional and geographically dispersed with the method: creating new plants here, destroying other there. Their market structures with supply and subcontracting chains combine with the local and cross-countries conditions and specificities turn to be minefields for the growth path of the recipient country as it happened in *Asian Crisis* for Malaysia, Thailand etc. They also take care of the no regulated labour market. As the advisors of the IMF use to promote: liberalisation and deregulation; such advices provoke disequilibria because of the lack of know-how and lead absolutely not to the desired changes for the country, but surely supply the needs of the Transcorporations.

It is meaningful to submit any transcorporation project to the National Board of Investment. The final decision of this institution will put the weight on the transnational corporation which are oriented in a double way in: the supply of national/regional needs and the export of value added goods and services. The deregulation and liberalisation or other development minefields as the IMF required and imposed should be overthrow in the poor countries.

2 Conceptual Framework for Promoting Employment

2.1 The Accountability of the Endogenous Factors

The endogenous factor is the heavy handicap to implement ad hoc reforms, which aims are to upgrade the living standards. Reforms have to proceed step by step and moving the endogenous factors from backward (time inadequacy) to frontward (modernity). The reform/process will also include the stability of the social informal network and the empowerment of all discriminated. By the design of the reforms, policy-makers and the decision-making process have to take into account:

a) the nature and the intensity of the inequality which in turn determines the position of the discriminated in the society and on the labour market.
b) *de facto,* to determine the quality and the quantity of the specific factors and their impacts on the programmes/reforms and on the society structures.
As input at the use for policy-makers, one could initiate an approach of the endogenous factors and any other specificity recorded as such. As we have seen above, the approach is multidisciplinary and involves all the concerned at different level. For the purpose, one can use a modified model/flow-chart.

Table 18: "Chamber's Rapid Rural Appraisal and Participatory Rural Appraisal"

	Rapid Rural Appraisal	**Participatory Rural Appraisal**
Period of major development/reform	Economic stagnation, crisis or welfare/difficulties in reform implementation	Constantly
Major innovators based in	Universities, Government (Policy-makers)	NGOs, Government-Institutions
Main users	Aid agencies, Universities, Policy-makers, Localities	NGOs, Institutions, Field Organisations
Key factor earlier overlooked	Local people Knowledge and habits	Local people capabilities and incentives for change
Main motivation	Problem resolutions and facilities to implementation	Adjustment/adequacy to the local context
Main innovation	Methods	Behaviour and Habit
Predominant mode	Elicitive, extractive, Empiric (field research)	Facilitating, participatory
Ideal objectives	Learning and understandment process	Empowerment of local people
Long term outcome	Plans/Projects, Publications	Sustainable local action and institutions
Short term outcomes	Ad hoc solutions/Plans	Compensation, incentives

Source: "Rural Appraisal: Rapid Relaxed and Participatory" IDS-Discussion Paper No.311, by R. Chamber 1992.

2.2 A Challenge for the Informal Sector

The main challenge lays in the GDP-account[450] and leads to a canalization of the informal sector in a *simile* of formal structures. An employee is an economical active or passive actor of the labour population without gender discrimination and child labour (≥ 15-17 years).

[450] It is very hard to calculate the value produced by the informal sector in the GDP.

This employment pattern includes salaried, self-employment, casual workers, job seekers, volunteers, wageworkers, absolute unemployed and other under-employed e.g. part time job as involuntary.

Self-Employment:

- repartition in urban and rural area,
- sectoral activities e.g. sale, trade, retail, services, manufacturing in urban as rural area,
- education level,
- work time (hours/day or hours/week).

Underemployment:

Concerns every worker (voluntary or not) working less than 35 hours per week included family helper in each area.

Unemployment:

Concerns a worker without any kind of job. He/she is available and rigorously seeking for a job. This excludes the labour aristocracy (They are already wealthy).

Salaried:

They are workers in the formal sector/structure. One can record their:

- repartition,
- sectoral activities,
- education,
- work time.

This classification in categories makes sense for a genuine calculation of GDP. Further, to make the GDP-results more explicit, one could disaggregate the results into activities-shares. The activities-shares will highlight the employment distribution, the growth of productivity and the trend of poverty through the share of the rest of the population in dependency. At this level, the final question is the volatility and the source of the volatility in employment.

– Over the period from mid-1990 to early 2000, there are some changes corresponding to “big projects”, change of government, new macro-policies, etc. Nevertheless, the general appearance is a positive and continuous growth rate over that period, although this growth has gone round to distribution.

– Taking into account the withdrawal, employment in relation to GDP is about 2-4 years delay and did not correspond to GDP growth, but still in concordance with the elasticity.

– The stability of the output is confirmed with the concordance of employment's elasticity with employment growth.

Depending on the political issues in the country, the growth is generally a reflection of the change in politics and economic policies, of the level of transparency and accountability, and of democracy. By the sectorial absorption, there is a discernible trend: the volatility in employment, the dominance of agriculture as *job creator and structural changes*. The second main job creator is the trade and retails. Except the multitude of not counted informal MSME, the manufacturing and services have not play a particular role in recorded employment (lack of meaningful data). There for, the so called residual "rest" is the point of controversy because it behalf the whole informal sector, impossible to quantify and definitively biases the whole result.

As far as we consider the division of work e.g. the role of men and women, there is a typical pattern, which leads to divide the role over the both sector as a reflection of the *theoretical approaches of gender*. Both sectors are in impure and imperfect concurrence.

Each one behaves – at least in Benin and Togo for instance – as "hunting range" e.g. formal for men and informal for women whereby, education level of the men increases their access to formal sector and leads to the so-called "barriers tied to employees"[451]. "These results can be explained partially through the nature of barriers reducing or limiting the access to labour market"[452].

2.3 Gender Approach of Employment

Gender e.g. women are the hidden potential of the whole labour force and market. Although they are participants of the economic activities and household, they dominate the informal sector, their records of participation in public life (economical as social) are still lower than ever. The experience in Benin as in

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[451] See "Genre, Education et Accès au premier emploi: le cas de la ville d'Abidjan" by Aka Kouamé and Abdoulaye Gueye in Les Dossiers du CEPED no. 56, Paris, Jan. 2000, p. 30.

[452] Ibid., further, as soon as the labour market is in crisis, the skilled men target progressively the informal sector. Concurrence with women becomes higher and harder to win.

many countries in SSA shows that a sustained improvement in opportunities and conditions of work for women will result in increased wealth and participation[453]. This problem is deeper and acute in the rural area where the increase of the core unemployment and employment surplus is for the women parallel to the increase of poverty and precariousness.

Field research in Benin and Togo has highlighted for example a particular phenomenon. Let us focus on Benin. If in Benin, the market women decide to strike, they will block, lock up the whole economy of the country, and seriously endanger in less than a week the national GDP.

This unaccounted force has a pound overhand on setting trend in the structure of the economy by increasing the informalisation, the women-autonomy, obtaining and creating greater opportunities, changing and transforming the social relation within a family e.g. declining role of males as traditional breadwinners. Nevertheless, women and children are still vulnerable. The inequities between men and women are rooted in the endogenous factors in each locality and area. The implementation of any reform will start from the bottom e.g. from the household toward the top. The point of departure is respectively the technical assistance (microfinance, family planning, household budget, children care, MSME etc.) reinforced with institutional reforms to sustain and to improve the technical assistance added to the government political supports as a friendly integration in the macro-economic strategies with regard on the short term economic fluctuations as in government human resource policy. The gender theoretical approach[454] is some socio-economical hypothesis that works in Benin could be resumed in the labour market as followed 4 general hypotheses:

"Feminist Theory"

Women subordination to men is an historical and cultural construction which leads to the fact that domestic activities (household) do not allowed an "off-domestic" activity. In a positive case, "off-domestic" activity is usually an extension of the domestic one such as street restaurant. By the way, the gap of inequity increases with the development level. Further, we could add some

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[453] See "Employment Creation and Development Strategy" by David Turnham, OECD Development Center, Policy-Brief no. 7, Paris, 1993, p. 10.

[454] See "Genre, Education et Accès au premier emploi: le cas de la ville d'Abidjan" by Aka Kouamé and Abdoulaye Gueye in Les Dossiers du CEPED no. 56, Paris, January 2000, pp. 9-13.

traditional views in term of endogenous factors e.g. religion, division of work, informal rules and other cultural unit of value in order to explain the low record of women impacts on the economic activities. In fact, this theory is *partially* correct and depends on the concerned region or locality. If we consider the labour force in SSA, ≥ 60 % of it is informal and largely dominated by women (skilled as unskilled in low to high productivity). Part of these women have gain their autonomy, are headed their families and are the single breadwinners. They are not a few exceptions but a well-know core of women-power[455]. A part of them become a guideline and/or multiplicator for the others. Women in the 21st. Century are really breaking out of this theory without jeopardising the social informal network. One should only pay attention to the fact that the centrepiece of the patriarchal system in Africa society is the number of children and the easy access to polygamy. This is far from the education level of the male.

"Human Capital Theory"

Education built up an important entry barrier into the formal labour market. In the line of feminist hypothesis, women are more discriminated in school attainment opportunities. Even with an equal qualification, women earn far less than a man for the same job. The gap of wage between women and men is shameful in SSA but narrower in OECD-countries because of the collective bargaining[456]. The attainment at school translates the status that a society does recognise for its women.

"Theory of Labour Market Segmentation"

The labor market is segmented in primary and secondary employment.

a) The primary employment is rationed, well-paid, real decent conditions of work with career opportunities. This segment is better unionised with collective bargaining. According to the enounced arguments[457], the segment seems to be a "*Gentlemen Club*" where women are not desired.

b) The secondary employment is the opposite of the primary. It is abundant and largely open to women. The income at this level is a complement for the

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455 See Madam S. E. Patience in Lomé for textile import or Madam Sonangnon in Cotonou.

456 Even in the handcraft, most women are paid on collective bargaining tariff some time with few percent points more. Nevertheless, women are still lower paid than men.

457 Bad attitude at work, absenteeism, lazy, professional instability, all worsened with marriage and children (matrimonial status).

household budget. The range of the employment is at the lower end of the employment market.

"Network Theory"

The occupied position in labour market depends on information and recommendation by searching for the first job or during the career. For the first job, the main and realistic determinant is the level of education although information and recommendation are not the least. During the career, the new occupied position depends on the level of the social contact and mobility. Basically, the "network theory is the agent theory with the lowest transaction costs". The common denominator is the social network (social class) to which the employee belongs. In this network, women are not representative enough because of the differential socialisation processes[458]. Even the women belong to the network, they do not have the same opportunities to negotiate wage, work conditions and nature etc. wage discrimination is completed with the nature of the work. In the formal sector, one can add following variable, which have sensible impact on women income: experience, generation, education, origin (wealthy or poor family and the ethnic group in some way).

3 Job Creation and Efficiency

3.1 Recommendations for Development and Growth in Benin

If we consider these highly successful economies such as the so-called *"Dragon and Tiger"* of East Asia e.g. South Korea, Singapore, Taiwan, Hong Kong, Thailand and Malaysia; their rapid growth and expansion were and are based on their capabilities to allocate their labour force which was trained and educated for the purpose. This labour force, well-nourished and healthy, produces a return on pre-investment as growth and expansion by producing high value-added goods and services for export as for the domestic market. It is a matter of cost-use-analysis in education and health of the initially large part of unskilled labour.

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[458] See "Genre, Education et Accès au premier emploi: le cas de la ville d'Abidjan" by Aka Kouamé and Abdoulaye Gueye in Les Dossiers du CEPED no. 56, Paris, Jan. 2000, p. 13.

Policy-makers and/or public decision-makers become "*just-in-time"* logisticians. It will able them to forecast the needs as a whole, to design the production structure to supply the needs just in time at the place and in the required quantity and quality. In the case of labour surplus due to the youth of the population as in Benin, this means that education and training system have to constantly upgrade skills in line with emerging needs[459].

In this order, one could understand how the South East Asia (SEA) countries are better off in this competition. They manage to use efficiently their capacities (plants and equipment) and their capabilities (the use of the capacities). The difference better calls the economical gap between SEA and SSA is too evident to merit further discussion but roots in SEA ability in the relative factor endowments. In return, endowment determines entirely the comparative advantage. SEA[460] had managed to move from passive imitation with unskilled low productive to active innovation with high skilled and high value-added production. This step over 1-2 decades requires a learning process, a risky Schumpeterian innovation process over education, thereby the return on investment are quasi-hypothetic because of the technological dynamic by itself. A policy which could be genuinely adapted to the specificities of target country in SSA like Benin is "the policy mix of South Korea", a kind of "good governance and freedom" to fulfil the requisites of Human capital Development: education, health, work, and nutrition.

The resumed elements of the policy which a poor country could emulate include: early and sustained emphasis on education, health and nutrition; a stable macroeconomic policy supporting a market friendly, "open" environment with incentives for exporters, investment (in coherency with the National Board of Investment), technology acquisition and adaptation, plus – in varying degrees – forceful intervention to help shape and give the direction to the pattern of industrial investment; a reasonably efficient bureaucracy (with Weberian meritocracy), effective tax efforts and public expenditure programmes, including infrastructure investments (e.g. social services, communication and transport network), early land reform plus continuing attention to agricultural develop-

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[459] See "Competing with Labour: Skills and Competitiveness in Developing Countries", by Sanjaya Lall, Queen Elisabeth House, Oxford University; in Issues in Development-Discussion Paper no. 31, ILO-Geneva 1999.

[460] See ibid.

ment (e.g. food security and off farm income)[461]. Further, the program should also include a systematic development of the MSME and of the micro-finance. All the countries of SEA are coming from a long period of persistent poverty, mismanagement of State's Affairs and over crowed and inefficient administration.

Within two decades, some of them like South Korea has achieved a development level narrow to some OECD countries. An average result or a top result will not be, could not be reached by a simple transfer of the policy mix but, by the adequacy of this policy to the poor country context. The path of success is surely difficult, may be hard but feasible. It is a matter of *rethinking and reshaping*.

3.2 Management, Efficiency and Coherency of Public Projects

A synergy has to be found between all the actors and operators e.g. government, civil societies, communities, NGOs and the National Industry (private as public). It could sound as a kind of "Super-ministry" as the MITI in Japan. It is obvious that the synergy behalf a strategic management, efficiency and coherency. As inputs, following considerations have to be taken into account:

a) The project will focus a decent job creation in order to fulfil the needs of poverty reduction, but not to challenge the ordinary existing jobs and workers. This creation aims to reduce the unemployment and labour surplus at first.

b) Goods and services are translated in construction and services. Particularly construction matches the role of public work e.g. infrastructure development.

c) Execution and capability must be transparent and accountable. The task team will choice the project director on his qualification and experience. The task team has to take care of the endemic problems which are: the public agencies lack of resource, suffer from corruption and technology; subcontractors/local private enterprises lack of capability. Whereas the OECD-NGOs bring the technology, the know-how and the financial resource but they lack of coherency. The concerned communities have nothing else as a surplus of young low qualified labour force. The latter is a latent source of political instability.

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[461] See " Employment Creation and Development Strategy" by David Turnham, OECD Development Center, policy Brief no. 7, Paris 1993, p. 12.

d) The time limit of the project depends on the project itself. It could be timeless such as road-network, time sporadic such as maintenance and repair or time target such as radio/TV station-receiver in rural area.

e) Income and bargaining are in an exceptional case. The context does not challenge the common labour market. Henceforth it is still the best opportunity to resolve the employment problems at the national level, thereby securing an out of bargaining minimum wage, providing basic social services or some social wage subsidies and skill to avoid future unemployment. This case is in bargaining, an opportune field of experience for all the actors, particularly the National Trade Unions to learn how to negotiate a consensus. In Benin, Trade Union should not forget that minimum wages are suspected of increasing unemployment, especially when combined with strict labour protection legislation[462].

These above mentioned considerations are not usually take into account, so then the future of the project are commonly risky, endangered through the conflicts between the instances, clientelism and others (corruption, incompetence, mediocrity, etc.). Therefore, the task team nominates the project-director on meritocracy and know-how.

3.3 Role of Labour Intensive Project

As labour intensive project or public work, we understand the infrastructure in the sense of meaningful transport network, drainage/irrigation, health care station, drink water supply for the countryside, electrification, ecological and environmental issues.

The demanders could take a certain part of the investment[463] and provide a large number of local unemployed poor. The role of the "public work" is strategic with double edge because the country by giving jobs opportunities increases the development level of its workers. The main point is the country capability to plan, to organise, to invest and to sustain adequately the public work/project. In the last decade, misallocation and mismanagement had lead to

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[462] See "What Can Developing Countries Learn from OECD Labour Market Programmes and Policies?", by Asa Sohlman with David Turnham, produced as part of the research programme on the Human Factor in Development, OECD Development Center, Paris, January 1994, p. 64.

[463] For instance, in the 60th under Maga H. and in the 70th under Kerekou M. Government; house painting and street cleaning must be done by the owners under government's decret so then reduce the government investment in maintenance.

increase debt, to concentrate or to spray the infrastructure for instance without coherency in the country. Most of the projects gone to arbitrary choice region/cities and did not brought the expected benefits at all. Public work in Benin should aim:

a) to create work opportunities, a chance of experience, of training in *learning by doing* for the hopeless and other disadvantage groups,

b) thereby, it is reducing unemployment and labour surplus as a whole,

c) to bridge the structural gap,

d) to secure an income at least for a while and to minimise displacement,

e) to lead out of discrimination such against disabled and gender,

f) to produce goods and services for a better living standard.

g) to maintain the best workers and train them in maintenance, repair and sustainability of the object in their charge, so once again reducing unemployment in the locality and confer benefits to the society and environment.

Not all projects could be timeless. As we have seen above, the time needed depends on the project intensity and structure. As one could notice the requisites to upgrade the stock of Human Capital do not translate effectively and explicitly some requirements of infrastructure for instance. The infrastructure belongs to the pre-requisites to sustain the development reforms and programs. The characteristics are hidden in the implicit effects by targeting for example one element such as nutrition.

Nutrition includes food and drink water availability and ability of purchase/affordability. Nutrition sets ahead drink water pipe all over the country, near by the consumers, land reform with technological and technical assistance, a well designed program on the agricultural productions, products processing units, drainage/irrigation project to make field productive and healthy e.g. environment protection and prophylactic health care, electrification and road construction for the transfer of good surplus to the region in need, etc and more than only food and water provisions. All these implicit pre-requisites are creating jobs, engage in other elements such as health, education, and increase people participation in order to upgrade their freedom of choice. By the way, the project generates economic activities in formal as informal sector particularly by the MSME with all the positive material influences on society.

Therefore, the decision-makers are confronted with a network planning of pre-requisites. It is surely hard to design and implement but still feasible as far as the know-how and funds are available and are allocated for this purpose.

3.4 The Need of Industrial Training Board (ITB) in Benin

In the country, each industry/branch has to set up its *Industry Training Board* to anticipate on a shortage in skilled manpower, because the industry is better off to know its needs in the present as in the future. It is not a kind of association rather a real Task Force of Industry Segment. It could be in form of a well and genuine designed *dual system* as in Germany or a kind of learning on the job (See more information in chapter IV about education).

The ITB is absolutely not a transfer of competency and responsibility from the government to the ITB, but a complementary to the government efforts and to the existing manpower and a strategy for Human Capital building for the future. The government has to guarantee sufficient training and education capacity in infra- as in superstructure. The development of skills and capabilities require a high cooperation e.g. synergy and coherency between each branch of the industry with the national decision-makers and the Board of Investment[464].

The structure of the ITB has to be standardised for all the industry in rural as in urban area. It is important to avoid complexity and misunderstanding. One could resume[465] the functions of the ITB as following:

- Administrating the funding of education and training for the industry training scheme (ITS) apprenticeship for instance and fund. It will include the development of curricula, skills registers and performance standards for the perspective designed and non-designed trades, as well as other categories of workers in conjunction with the national representative technical committees. It will secure the affordability of training and maintain its cost-effectiveness.
- Surveying (and exploring) the manpower and training needs of the industry in order to deliver just in time skilled manpower by providing and facilitat-

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[464] See further in text.

[465] See "A Training and Development Partnership between the Building Industry and the South African Government", by Prof. P. S. Nel, Graduate School of Management, University of Pretoria, Republic of South Africa, December 1997.

ing the provision of skills and supervisory training; setting standards, securing transferability and usefulness.

- Developing training course materials as coordinating curriculum development and revision of the subjects taught at the technical colleges; further, registrating all trainees undergoing, accredited training as well as the modules completed by the trainees as promoting training, including supervisory training among employers, recognising prior learning.
- Conducting testing and certification on behalf of the ITB with the creation of meaningful career path.
- Further, the ITB system will be regularly reviewed and adjusted to the current needs and completed if necessary as promoting the various careers opportunities offered by the industry from the apprenticeship, manual skill level to the degree and diploma level (as in Japan from chain-gang to the general director chair).

At first, it will cover a range of elementary level of clerks and manual workers. After a short period (2-4 years) nearly enough to accumulate and reshape experience; the ITB can step ahead into the secondary level e.g. master of handcraft, low and middle management. The ITB is not a substitution for university and technical colleges or other accredited education institutions, although it could be or becomes an accredited Training Board.

The officers of the National Manpower Training and Qualification Board have the full responsibility for overseeing and controlling the training and apprenticeship system. It could sound segregative to let at first and for a while only the industry employees which contribute through a percentage of their wage-bill to the scheme as "entitled *to the benefits offered by the scheme for the training*". For the outsider, a scholarship is needed. However, this scholarship is provided, an entry-examination, based on prior knowledge could be some alternatives for the outsiders. At the beginning, the scheme will make a double use of the existing scholar-infrastructure at all level. Even a double use of the teachers and instructors of regular institutions (schools, technical colleges, universities) in order to make over time paid in cash by the ITB.

None should forget that poor standards in the industry are due to the lack of skills and capabilities of the poor workmanship. To be competitive, sound standards are needed.

4 Social Aspects of an Employment Policy

4.1 Profile and Implementation of Trade Union (TU) in Benin

In Benin, the foundations of a National Trade Union had followed a long process of struggles and claims, particularly at the end of Marxism-Leninism. In that period, it was a political or social case on which the strike started. Most of the formal and informal civil societies work together with the strikers. Later on, they found the National Trade Union (TU). This briefly explained process was the common process in the *French Colonies,* just before the independence wave in Africa at the end of 50s until the beginning of 60s. A remake happened in Benin. The case of Benin has chosen somehow a "none conservative path", original footprint to mark its Benin authenticity. It may be possible, that this particularity has brought more complexities and problems than a conservative way, but Benin is at the beginning.

Three (3) decades at least after the independency, the industrial plants are not constantly and coherent distributed and adequate to the needs in the country. Most of the plants are anachronism in regard to the country development level and stock of Human Capital. Either they are concentrated around a point such as the capital city or they are dispersed in small geographical units of production. This structure has a heavy consequence on the labour. It led to a disintegration of the labour force, to an urban or plant concentration, to a deep skill-based differentiation with a consequent wage disparity.

In Benin, the TU has to resolve this high complex problem and design a genuine agenda for the future. Other challenge at macroeconomic level reinforces the complexity e.g. state capacity to mobilize resources for labor intensive project (infrastructure for instance), fiscal policies from the demand side, and the macro-economic stabilization etc.

Further, the exponential growth of the informal sector is deepening the gap with the formal sector. However, this gap has to be bridged. Not only in order to achieve a simply cohesion in TU activities, but basically to enlarge efficiently the safeguard in protection and security to the informal sector which is not accountably integrated in the whole economic and social policies while this sector is having an increasing commonality with the formal sector.

The current identification of the predominance of women labour force in the informal sector e.g. MSME (Micro-, Small-, Medium-size Enterprise), single

breadwinner in household and the inequity against those women can be one of the important concerns in the agenda of the TU. The established structure by AFL-CIO in the USA on organising less skilled workers, women and minority groups in the service industries[466]; can help the TU in Benin to extend its efforts to the informal sector, even to help by this sector organisation and integration. There are useful inputs, which could be taking out of the USA experience and then adapted to the local context.

For the profile and role of a TU, we can retain that; the officers have to be competent, well trained and merit-based personal. TU cannot be a clientelism agency as under a dictatorship. According to the needs of the workers, the TU can be participative, protest or opposed to the government decision in order to increase the living standard of the workers, decent work and freedom without the suspicion of increasing unemployment. TU is a guaranty of a fair distribution of wealth without a political colour; therefore, it is not a refugee for the opposition members as for other political agitators. Depending on the cohesion within the TU, the power of the organisation in social equity and freedom will lead to a social progress, will increase security and protection.

The objectives are to pay attention to the different economic, political and geographical parameters which explain the gap in knowledge concerning the TU in different localities (urban, rural, region, cross-country) and possibly to profile a set of standard targets for the common purposes. Basically, the traditional role of the TU is to facilitate production and ensure an equitable distribution of value-added through collective bargaining and negotiations. Further, the democratic and representative role must be added to the social role of minimising risk of exclusion in an industrial society[467].

The role/objective of the TU can be resumed in following points:

- The management of the important and considerable division of work between state regulation and collective bargaining;
- A decisive participation by government decision-making on economic and social development e.g. by the economic and social council, the parliament

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[466] See "The future of Labour Movement: some observations on developing countries" by A.V. Jose, International Institute for Labour Studies; Labour and Society Programme, ILO-Geneva, First published 2000. Endnote 10.

[467] See ibid.

commission of economic and social affairs, the national social security fund, the labour agencies and professional training institutions etc.;

- The moral and material defence and protection of the workers;
- The security and progress at work as in living standard;
- The contribution to implementation and sustainability of freedom, democracy, and transparency as accountability;
- The defence of the TU independency;
- The institutionalisation of a *National Code of Labour* e.g. hire and fire, health and safety, wage, human capital development, social services, rules of the wage agreement, collective negotiation, enterprise committees, gender, young unemployment etc.
- It must reflect the democracy and the human rights acceptance level within the country.

By doing as above, TU canalises the benefits of economic growth and wealth into a qualitative and quantitative workers living standard. Empowered through these actions, TU becomes an actor in the democratic decision-making in economy as in social policies. Precedence have confirmed in industrialised countries[468] that TU structures can lead to conflicts between the members, even to a serious controversy within and/or between the Unions, then with the public. One of the sources of dispute is for example the decentralised collective bargaining/negotiations about wage and work conditions. If at first, we do consider the lack of well and adequate skilled workers, their repartition in the country; it obvious that any decentralized bargaining will automatically increase the current lack of skill through a high intra-migration to localities with a better wage according to own transaction costs.

Such decentralized policy cannot, could not root in this poor country as long as an informal network of support (extended family or community) will somehow exist. Surely, it is a matter of time that the rise of industrialization and development will jeopardize or at least to adjust the significance and weight of the informal network.

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[468] Field Research, 1999 and 2002. A Portuguese earns about 3-5,- Euros/hour in Lisbon in the building industry. Moving to Berlin/Germany, he earns around 10,- Euros for the same job. In Germany, the Bremer moves to Stuttgart for the same reason. In England, the wage depends fully on the ability to negotiate it.

Decentralised bargaining has to be carefully and genuinely designed and its introduction in a poor society slowly and progressively, particularly for the lower end of the production system (formal as informal, rural as urban); thereby to avoid a rapid deterioration of income distribution so then the deterioration of living standard and of social cohesion.

One should mention that social cohesion is correlated to the industrial growth and capital intensity which consequently diversify the agenda of the TU in order to provide for instance health care, leisure, recreation, retirement and non-wage benefits from employment[469]. Some services cover practically even the entire population as health care in Israel. The policy-makers will pay attention to the extension of services provided by TU under competitive conditions. At the beginning of the 21st century, TU in a poor country are also confronted with technological change, globalisation, and the key consents of TU. The consequence is the so-called *quasi-communities of labour*. These TU have to be at the level[470].

Most of the times as the Japanese industry have improved it; the quasi-communities helped develop a pattern of enterprise restructuring with flexible employment practices based on retraining and relocation of workers and with minimal use of lay-offs[471]. This key consensus is rooted in a structural metamorphose of production and services system by outsourcing in the enterprise and the reorganisation of labour, work process; even somehow a return to a primitive taylorism[472] at the lower end of the production.

The significant achievements of TU are to sustain and to upgrade the safeguards on employment and decent work, to extend those to the informal sector. These could only be achieved through a kind of national collective bargaining included a minimum standards and wage, health care and safety nets (e.g. social services) irrespectively to the location of employment. The credibility and

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469 See "The future of Labour Movement: some observations on developing countries" by A.V. Jose, International Institute for Labour Studies; Labour and Society Programme, ILO-Geneva, First published 2000.

470 This means ready for the hell ride otherwise the officers are going to take the monkey in them back.

471 Inoue (1999), cited by A.V. Jose, See "The future of Labour Movement: some observations on developing countries", International Institute for Labour Studies; Labour and Society Programme, ILO-Geneva, First published 2000.

472 In a field research, one could notice for instance in the automobile industry in the OECD countries particularly in Germany, how impact full is this return to a primitiv taylorism as the counter to bargaining and wage increase. Experience made by the author as employee by Mercedes Bremen/Germany.

the power of the TU depend on its ability to guarantee all these requisites. One of these requisites is the income inequity.

To develop Human capital requires the establishment of a minimum standards e.g. employment, wage, conditions of work and social services. These standards are already interdependent with health, education, freedom, and their respective sustainability. The IMF liberalisation campaign[473] had deregulated prices and resulted to anarchy in the quasi-totality of the poor countries by steady increasing debt crisis and lowing growth. Therefore, wage could be only set through redistributive transfer, involving the social partners and fixed at a minimum.

As soon as the political institution will enter this particular field and will focus on fixing a minimum standard, then it will become a reality and by the way, the greatest help for TU to strengthening bargaining, social dialogue, services, cohesion, raising the level of social consumption, democracy and human rights. Most of the time, only the prolonged struggle and profound sacrifice have brought them closer to the goal of guaranteeing civil and political liberties to a broad spectrum of society[474]. The most powerful precedence is the *"Lee Kwan Yew Regime versus Trade Union"* in Singapore and he retired in 2011 after 52 years from the government.

4.2 Social Services and Social Peace in Employment Policy

The lack of social services and protection in Benin rooted in the incapacity and incapability of the government. The policy- and decision-makers use to minimise this aspect of the poverty alleviation and Human Capital Development by the design of employment policy.

Services, which could maintain incomes, ensure access to adequate medical care as the other services are only purchasable by the upper-middle and high income (about 10 % of the population). Field research has testified that in Benin as in other poor countries, if the government suppliers claim a fee-covering people with a low level protection, the supply is subject to moral hazard and adverse selection within the contributers i.e. the tax-payers.

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473 Better call the "forced liberalisation of the IMF".

474 See "The future of Labour Movement: some observations on developing countries" by A.V. Jose, International Institute for Labour Studies; Labour and Society Programme, ILO-Geneva, First published 2000.

On the other hand, a rapidly changing society at least through the media, particularly the TV, and other communication systems is breaking slowly down the informal network of support such as extended family or community. By the same time, a social protection institution does not fulfil the vacuum; thereby increase the level of poverty[475].

It is to notice that full-employment policy reduces the cost of social services, but could also bring a negative feedback if the policy does not consider labour market and social services together. The most pressing social service is still health care with its problems of *free riders*, moral hazard, and adverse selection from the suppliers[476] (which are few) to the demanders (the entire population). These problems turn around the financial capability and leads to the conclusion that those providing the care must be adequately protected and remunerated and…those receiving the care are adequately served and protected[477] without any form of discrimination e.g. gender, disabled, poor in order to put them under strain. By unemployment insurance, the quasi-totality of unemployed people is disfranchised. Those people require urgently the informal network of support to survival. From the official stand, there are two main reasons responsible for such a situation; either it is the mismanagement of the national resource e.g. unemployment budget and repartition consequently correlated with the existing legislation and administration of unemployment or the concerned are in the informal sector.

In the ideal case, if there is a budget allocated to unemployment benefits; one again through the imported technological assistance in form of know-how[478] transfer from OECD countries; this budget is put under strain so that it becomes unable to fulfil its function because the resource is not available anymore or short. Retirement pension is only for those registered. None of the workers in the informal sector could ever claim a part of this fund.

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475 As the international financial market, the informal network in urban area is running amok, "*à la leaving and let die"*. The rural area is still far less penalised. It is only a matter of time to reach the pervasive standard of urban area.

476 In Ethiopia, there are for example 60 oculists in Addis Ababa for the whole population.

477 See "ILO Institution and Decent Work", 87th Session, Report of the Director General, Geneva, June 1999.

478 See the French model of National Accountability (La Comptabilité Nationale) and its Social Security Satellite Account (le Compte Satellite de la Sécurité Sociale) over-stressed and full packed with alien accounts.

In Benin for instance, the system of pension discriminates women[479] married or not because it ends with their early death automatically and independently of the age of children let behind. No pension is paid by the fund to the minor children let behind. By men, the benefits are low but are steady paid over their death for a while, as long as their woman (women) is still alive.

The state of social services is worse in the rural area. There is a lack of basic health care even with fee, let for rest, far behind. In turn, the young unemployed move to the urban area, in overcrowded slums with the hope of better wage at least in the informal sector.

Benin is in need of national universal social services that dispensed a basic health care as in Israel, a minimum of unemployment insurance as in France or Germany, a pension benefits out of gender discrimination as in OECD-countries all granted by a genuine distribution of national wealth and growth. At this point, we are nearing the necessity to have a TU and its role in the social dialogue to keep social peace. At the present, people still have enough help from the informal network of support. As soon as this network will disappear, it will be too late[480] to find the way out of the crisis.

It is not far from way to put social dialogue with collective bargaining in order to keep social peace. At first, social dialogue is supported by TU, civil societies, and NGOs. Although, it is restricted in some countries in Africa, in other such as Benin, it is democratic. The social dialog is only weak by the lack of competency and weberian meritocracy of the officers[481] in charge. Most of the time they are not enough trained and educated for the purpose. Nevertheless, in an ideal case in the future, the TU can diversify its activities and services, can supply at least its members with social services, competitiveness and productivity analysis even a macroeconomic one. The economic efficiency of bargaining system and regulation can help to keep social peace in the country as far as:

- Bargaining is adequate and consequent to the industrial and national context;
- Negotiations are centralised at the national level and taking into account the domestic and the international competitiveness in accordance with the national growth and welfare;

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[479] The author has experienced the case by his mother.

[480] Conf. the history of the workers throughout the industrialisation in OECD-Countries. It seems to be harder to bring the politicians and other decision-makers close to the problem in its ex *ante* form as in its *ex post* form although precedence are enough available.

[481] Someone are learning by doing and their efforts are for their level remarkable.

- Negotiation at the enterprise level are a complement but not a substitution to the national collective bargaining, exception could never make rule;
- This enterprise negotiation is subject to a re-negotiation after a time limit with correction at the top (e.g. wage increase);
- Negotiation with Transnational Corp. will exclude personal leasing agency and will never cross industry or intra-industry sector e.g. employment classification[482];
- There is a granted minimum wage with wage subsidies for families with low income all over the country, included a basic minimum social services offered by the TU.

In fact, it requires a high level of know-how to implement the above regulations by bargaining and social dialogue. The centrepiece, the corner stone of the problem is to know: who? Where? When? For which purpose one must hire the needed competency, if the competency is not available within the officers in charge?

4.3 Integration of the Informal Sector

4.3.1 Definition and Data Analysis

An informal sector production unit is one that is operating without binding official regulations (but it may or may not autonomously regulate itself) as well as one that is operating under binding official regulation that do not compel any regulation of its operations in all markets and in its production process (but it may or may not autonomously regulate itself)[483].

This approach of the informal sector (IS) can be conceptualized in a figure. It will help to distinguish the break point between the both sectors and the mechanism of the steady informalization of an economy. The characteristic of a production unit in the IS in Nigeria for instance is the same, particularly in the West Africa countries, because of the high developed network between the actors, which in turn able the transfer of know-how.

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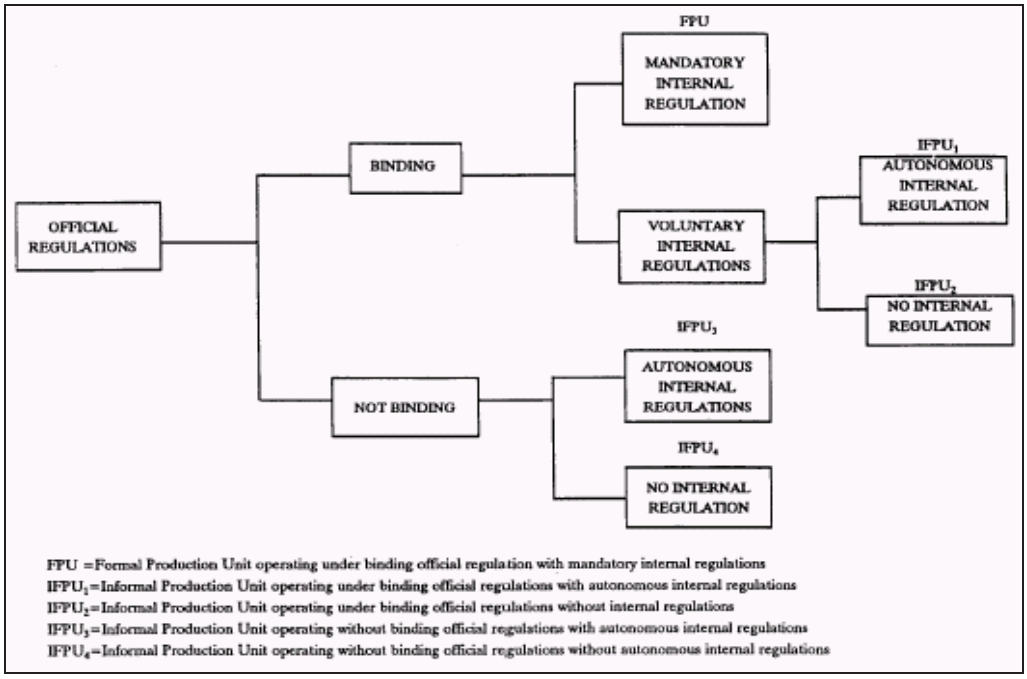
[482] Field Research 2003 and the Agreement on Cotton-Export 2003. A well know strategy of the Transnational Corp. is the employment classification for minimum wage. These employers pay for instance the workers as agriculture labour whereas they are in agro-manufacturing process. The difference in wage can be ≥ 100 %. (See United Fruits, Unilever and Maxwell in Guatemala, Honduras, Bolivia etc.).

[483] See "Conceptual and Methodological Framework for Informal Sector Research in Nigeria"; a publication of the Central Bank of Nigeria/NISER-Informal Sector Study; Edited by E.U. Olisadebe and Olu Adjakaiye; 1996, p. 13.

Figure 2: A Proposed Framework for Conceptualising the Informal Sector Production Units



Source: "Conceptual and Methodological Framework for Informal Sector Research in Nigeria"; a publication of the Central Bank of Nigeria/NISER-Informal Sector Study; Edited by E.U. Olisadebe and Olu Adjakaiye; 1996, p. 14.

A rapid informalisation of the whole economy is already recorded in all poor countries of Africa. For the test of this informalisation process, one could refer to the International Standard Industrial Classification (ISIC)[484] of the economic activities and enlarge it for the purpose to the IS.

According to the development level of the activities in the IS, in case of Benin; we can allege following:

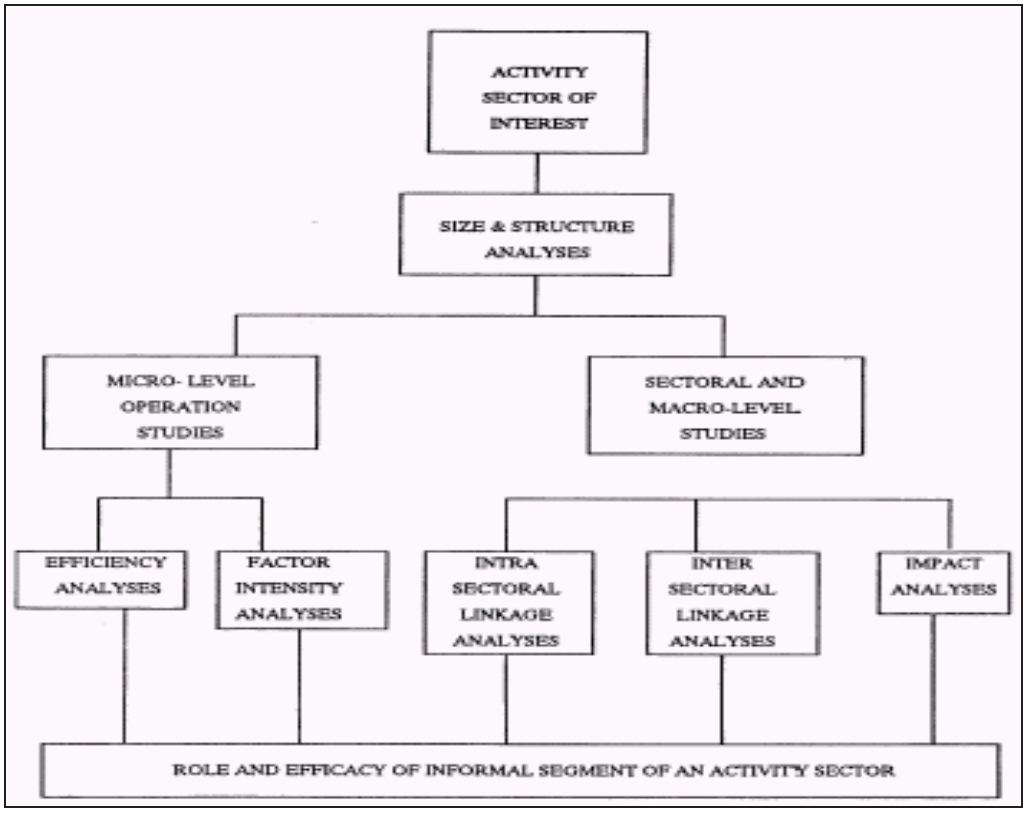
A: Agriculture, hunting and forestry are purely rural.
B: Fishing provides rural and urban area
C: Mining (gold) in the rural area comes sometime in contact with another public project
D: Manufacturing (urban and rural in textile, leather, metal and recycling etc.)
E: Water supply in both areas as drinkwater and/or public project
F: Construction as a whole and in both area (carpenter, plumber, electric …)
G: Wholesale and retail trade (from a piece of cigarette to car and house trading),
Maintenance and repair of motor vehicles, personal and household goods in both areas
H: Hotels (non-registered) and street corner restaurants in both areas
I: Collector rent transport, wild storage as cinema/TV and all instant communication (Handy, telephone, telefax) in Private house in both areas

[484] See "The U.N.O. Statistical Office", New York, 1990.

J: Financial intermediation such as tontine, banking in both areas
K: Real State, Renting, and Business activities and advising in both areas
L: Security (watch guard for business and/or house in both area)
M: Mentor for wealthy children, handcraft-apprenticeship as education in both areas
N: Health (plants/bush medicine, midwife), social work (child garden etc.)
O: Other community social and personal service activity (network of support, civil society
P: Private households with personal (employees)
Q: Extra-territorial Organisations and Bodies (enlarge to ethnical groups).

Almost all the classifications are recorded[485] in the urban as in the rural area. The IS has prove a powerful and innovative accent. The innovations are most of the time in the creation of activity, economic loophole settlement and/or for regulations evasion. All these non-registered/hidden activities are lacking in the calculation of the GDP as in the design of a well-found policy to alleviate poverty. They are the free riders of the economy. The following figure 3 is a schematic diagram of sequential empirical informal sector research.

Figure 3: A Schematic Diagram of Sequential Empirical Informal Sector Research



Source: "Conceptual and Methodological Framework for Informal Sector Research in Nigeria"; a publication of the Central Bank of Nigeria/NISER-Informal Sector Study; Edited by E.U. Olisadebe and Olu Adjakaiye; 1996, p. 19.

[485] Field research.

This schema is obviously rudimental but useful to identify some characteristic, some distinction in the activity intensity. The analysis leads to improve the existence, the size, and the structure of the activity. This analysis able the determination of the immediate tangible points such as the type and the source of the used finance (tontine, informal banking, family/community network). The next point is the size of the production technology e.g. the skill and gender labor force as inputs; the type and source of the production unit as for the row materials or other required inputs. In order of outputs, indicator is essentially the quantity and/or the value of goods and services produced[486].

During the operational studies of the IS, the results are the most frustrating one because of the availability of insignificant[487] data. On one hand the micro level, on the other hand the sectorial and macro level will provide a data flows as input to the national policy-analysis, -design and later on, -implementation because the inter-sectoral linkages and impacts can have a multiplier effects on balance of trade, so then on foreign exchange for example.

Over the efficiency and the factor intensity of the sector, one of the centerpieces is to identify the existence of complementarities and/or competitiveness between the both sectors.

The misunderstanding of the IS in the government employment policy is based on the lack of data. The data compiled for the design of policy biases significantly the quality of the policy and leads to an adverse effect on the IS. The employment policy includes the promotion of the rural structure, of the MSME in rural as in urban area, of the income sustainability by job creation. The real target of the policy-makers is the poverty alleviation and the fulfilment of Basic Human Needs with growth; otherwise, the government will generate a macroeconomic confusion in its policy and implementation. Either the government targets growth which may have effects to upgrade the Basic Human Needs without guaranty of sustained positive result or, the policy is designed to fulfil one element of the set of Basic Human Needs such as education, health or

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[486] See "Conceptual and Methodological Framework for Informal Sector Research in Nigeria"; a publication of the Central Bank of Nigeria/NISER-Informal Sector Study; Edited by E.U. Olisadebe and Olu Adjakaiye; 1996, p. 16.

[487] Even by the collection of sample, the interviewer and the interviewed behave as agent, minimise their own transaction costs and are looking for incentives; added to the fear of the interviewed (e.g. government regulations). The results are the same as in Nigeria and need to be seriously rethink and reshape for the purpose.

employment. However, the chosen element will surely bring a better score, at least on the population, with a low return on growth. This distinction[488] is crucial.

As the corner stone of poor countries economy, covering a sound 60 % of the labour force; the "IS" is still undervalued and a big problem for any government through tax evasion, overcrowded and *unregulated* business, casual/opportune/seasonal business or activities which, in return, undermine government planning efforts. Within few steps, government can afford to cut short to the problem. First a deliberate effort must be made to change the attitude of policy-makers and operators (in the line of weberian meritocracy and good governance) in formal sector toward a better appreciation of the interdependence between the formal and informal sectors. Second, the creation of an informal sector Monitoring Unit in the Central Bank (together with a Secretariat of State for IS).

As third, we will consider a simplified procedure of registration with incentives (such as credit facilities, information, land, technology and technique)[489]. A particular consideration should be accorded to the urban IS characterised by the absence of well researched typology and structure. The most advanced argument is that the urban IS behalf the easiest entry as anywhere else and is rule less. Commonly the size is put at around 60 % of the urban employment. The new particularity of this sector is to drain skilled manpower (more women as men) in the informal entrepreneurship because of the lack of jobs and the entry barriers in the formal sector. Further, another reason is that, this skilled labour earns most of the time more in informal than in formal activities. The migrants, who achieve to stay in urban area, are also those, which have success, which have doing better as at home even by combining urban different types of earning with rural earning.

The main problem of this IS compares to the so-called *"community leads project"* in the rural area is that, it is disconnected from everything e.g. easy access to micro-finance, widely spray entrepreneurial know-how through training, technical training, adequate education for stepping from informal to formal

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[488] This distinction is somehow confused by policy- and/or decision-makers.

[489] See "Conceptual and Methodological Framework for Informal Sector Research in Nigeria"; a publication of the Central Bank of Nigeria/NISER-Informal Sector Study; Edited by E.U. Olisadebe and Olu Adjakaiye; 1996, pp. 35-36.

sector etc.Indeed, there are some efforts within the IS in collaboration with NGOs in order to improve, to empower activities and living standards. The efforts also aim to drawn regulatory framework and own institutions e.g. finance, training etc. to upgrade opportunities and efficiencies by tackling the targets above mentioned.

4.3.2 Micro to Small-Scale Operations (≤ 10 persons)

This affirmation is relative to the activity. It depends on the level of the activity (cigarette retailer or warehouse owner to public project subcontractor). A significant part of the activities is labour intensive, more or less in big business. According to the contract or to the casual job, they do have a kind of intra-activity collective bargaining and working hours per day/week for instance in Building, Maintenance and Repairs etc. Indeed, there is no limit to vertical as horizontal growth, because this depends on the ability of the owner to manage her/his own business.

Skill acquired on job or primary level of school attainment

In this postulate appears the illusion that the "IS" is the crossing point of the unskilled. For instance, building and fishing can have a complete team with less than a year school attainment whereas the owner has a MBA from Sorbonne University. On the other hand, a neighbour MSME (Civil Genie subcontractor, Architecture agency, Infrastructure Project) has a team of technician with bachelors until analphabets. The last may learn on the job. Once again, it depends on the activity and the target.

No record of legal and administrative regulations

Some activities are organised in Union, association, or guild with levies. They are organised, recorded, and administrated. They provide credit to the members but not at the official level. In some community, they build up the entry barriers. The double edge policy is when local authority or the government collect the so-called *"Place-fee"* by the activities without care of the type, the area, the source, or the target of the activity.

Semi-permanence of the activity

Although, there is a high fluctuation in the sector, none one could generalise a few activities e.g. cigarette retailers or fried fish salesmen to the whole. Hand-

craft for instance is a lifetime job. Because of the intensity of competition and the acquired know-how, lifetime aspect of the activities is rapidly increasing. By the way, intra-regulations seem to cut short to the wildness of competition and turn to be an entry barrier.

No collective bargaining and income level

The ability of an MSME-owner implies his/her income level. Compared to the minimum loan[490] in the same activity in the formal sector, this income can move from ≤ 1 to ≥ 10 times depending on the activity. Indeed, at the same time, his/her employees are most of the time if not, generally under the minimum loan. Nevertheless, in some community, union, associations, and guilds have achieved to implement some standards included wage/loan/income, which can be more than those in the formal sector. In this case, education/training has a positive impact on income, which increases with the level of urbanisation, upgrade the mobility between both sectors, so then combine different sources of incomes in the household

The IS in exchange and foreign trade

As long as government will enforce regulations, will keep the marginal tax rate high, people will create Para-legal operations and activities even in form of black-markets. If they cannot evade, they will at least understate personal and income. They will collude with government officers to go round to regulations, rules, administration, and record. In the regional integration in IS, the flows of trade and exchange for example in the meaningful Nigeria rice import through Benin Harbour do have an adverse effect on Benin macro stability.

This aspect introduces a culture of high corruption, monopoly, jeopardising local production, (agriculture and industry) and not at least, increases Benin debt in the balance of payment. These are the shares of smuggling operations. As conclusion, one can say that: the rapid increasing informalisation is the testimony of the inverse proportional low development and per capita in a country. It is not all a time compatible with the UN-definition of 1995: "Enterprises in the household sector owned and operated by own-account workers, which

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[490] See Arvil V. **Adams** in "Skills Development in the Informal Sector of Sub-Saharan Africa" by Arvil V. Adams, World Bank August 8 ,2008, 15th November 2016, at 1:30 PM underhttp://docplayer.net/12827400-Skills-development-in-the-informal-sector-of-sub-saharan-africa.html

may employ contributing family workers and employees on an occasional basis but do not employed on a continuous basis".

Informal Education and Training

As we have seen in earlier part and chapter, the informal sector (IS further in text) is one of the main vectors of employment, income generating and growth in Benin as in most low income countries of SSA. Benin government is seeking to strengthen their efforts to increase earning and profitability in this sector by developing at first the micro-credit opportunities. Skills development becomes an important part of the equation of raising the incomes of those working forces in the IS. However, the development of skills in the informal economy seems to bring more difficulties in the planning than for the formal sector and public training institutions. This is the logic consequence of the focus mainly on the skill needs of the formal sector and the less attention given to the needs of the IS. Commonly in Benin, the traditional apprenticeship means to provide skills to IS, and they are self-financed, self-regulated, and closely connected with market demand. These traditional apprenticeships[491] have weaknesses and their quality varies widely.

At this stage[492], we have to make a clear difference between: Employment in IS and Informal Employment. At first, employment in IS includes own account workers, self-employed, unpaid family workers, paid employees, and members of producers' cooperatives, daily workers. *Informal employment*[493] can also be found outside the IS and includes unpaid family workers, workers with precarious employment in formal sector enterprises, and certain employment in households producing goods exclusively for their own use or employing paid domestic workers. This type of activity allows employers to increase their incomes. The informal employment can provide a cushion for workers, who cannot find a job in the formal sector. This leads invariably to a high tax burden on registered labor. The separate study of informal employment, going beyond the

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[491] See Arvil Van Adams in "Skills Development in the Informal Sector of Sub-Saharan Africa", by World Bank, June 4, 2008.

[492] Ibid.

[493] See Arvil V. Adams "Skills Development in the Informal Sector of Sub-Saharan Africa" by World Bank August 8 ,2008, 15th November 2016, at 1:30 PM underhttp://docplayer.net/12827400-Skills-development-in-the-informal-sector-of-sub-saharan-africa.html

IS, has attracted the attention of policy makers in Benin concerned with increasing precariousness of employment in all enterprises.

Generally, the education levels in the IS are lower than those in the formal sector. Structural adjustment programs and tight government budgets contributed in the 1980s and 1990s to deteriorate facilities, opportunities and equipment. However, as the public service in Benin began the re-structuration and re-organization of its departments and offices, it happened a recruitment-stop. This new situation has even obliged educated young workers to enter the IS. These new arrivers have brought a very hard competition into the IS for the uneducated. Commonly in Francophone West Africa, about 50 %, a half of IS workers have either no education or a primary education and less than 5 % have a post-secondary education.

The question of our concern is to know how Benin meets this important challenge by finding ways to continue education and promote skills training forms in the aim to improve productivity in the IS and by the way, reducing poverty. As in Germany where apprenticeship goes through a dual system (on-the-job and in the classroom), we can see a rise of this training's form in Benin.

For those working in the IS, this approach to skills is used. Public and private schools[494] and institutions are playing an important role in preparing individuals for creating their own employment by providing them with a technical skill, usually through a technical and vocational education curriculum, which is certified by the Chamber of Craft and Trade. A commonly used approach to skill for self-employment is working for another employer and acquiring skills on the job. Whatever this job may be, the training[495] is either informally or through an apprenticeship, before leaving to set up one's own business. Certainly, we have also the so called traditional apprenticeship.

Public technical and vocational efforts for the IS

It will be wrong in this context to mention the effects of formal education at the Public Secondary and Tertiary schools with technical and vocational education programs; because they have played a smaller role in preparing workers for IS employment. If we do take into account that in urban areas about 46 % of the

[494] Ibid
[495] Ibid

employment are in IS, and this sector estimates that on-the-job training, self-training, and traditional apprenticeships account for nearby 90 %[496] of training. It is high time to bring curricula in it. Other constraints forced the public sector to delay the skills challenge for the IS. The training offered by the public sector – which entry requirements and fees are often too high – doesn't suit the multi-skilling needs of the IS but better suited to a more literate population. On the job and most of the time, the trainee is considered as a clerk, because they are too theoretical in focus without sufficient opportunities for practice and biased toward white-collar[497] jobs in the wage sector.

Public technical and vocational educations are full time education. This is not the expectation of the IS. A more flexible approach such as a part time education – that permit flexible entry to and exit from training at hours not interfering with the workday (for example, loss of income) – is needed to meet the needs of the IS.

The German dual system of education in Benin, by introducing enterprises in this system has brought a huge innovation in public secondary and tertiary education institutions that are significant to the IS. The students are then able with their knowledge and skills to run businesses.

Nevertheless, there are still a few handicaps for national implementation of a curriculum such as their specificity for a guild of entrepreneurs, for the local labor market demands, etc. But a program[498] developed by ILO and GTZ (Gesellschaft für Technische Zusammenarbeit/Germany) as we can note by Haan, it gets closer to the IS.

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496 Please compare to the study of Filipiak (2007) the informal sector in 7 African countries. He estimates that on-the-job training, self-training, and traditional apprenticeships account for 95 % of training in the informal sector. Senegal, for example, has some 400,000 youth in apprenticeships compared with 7,000 in technical and vocational education and training. Monk, Sandefur, Teal (2007) in Ghana, using a household survey, find that 80 % of training is acquired through on [the] job training and traditional apprenticeships.

497 See Liimatainen 2002.

498 See: ILO Start/Improve Your Business and GTZ's Competency; based Economies through Formation of Enterprises and Haan 2006

5 Approach of Employment Policy

5.1 Inputs for Policy-Makers and Labor Strategy

The attention has to be given to rural area, agriculture, infrastructure, health and education. The weight will be put on the poorest that constitute the most part of population. The aim is to achieve food security, income availability, basic health care and education in a participative way. The emulation's model can be an adequate synthesis of South Korea Program from 1965 to 1980 and the Reconstruction and Development Programme of South Africa added to freedom and participative regulation. In its main line, labour policy have to tackle labour surplus in term of young un- and under-employment; to examine carefully the role of agriculture, infrastructure and their connex activities. A strategic and synergetic cooperation with the BoI and ITB are unavoidable.

According to the report of the UNO-sub-organisations (ILO, UNDP, FAO, WHO, UNESCO) or from the World Bank and IMF; all the countries of SSA are stressed by debt crisis and other crisis such as ill-conceived fiscal, reforms and programs. Although a return to democratic state with some transparency has brought more stability in the public as the private environment, change in macro-environment induce a heavy impact on growth and Human Capital Development, in the common expression, there is a slowdown of GDP.

At the beginning of this study, we have showed why GDP cannot and could not translate people wealth in a poor country such as Benin. It is happened that an increase of one percent point of the GDP is accompanied with a high increase of poverty. We have found out that a misallocation of resources, an oligarchic concentration of economic activities have deeply biased the share of wealth in term of GDP per capita.

If there is a real growth of employment, wages[499] are commonly eroded by inflation, fiscal, tax policies and other price increases. People then use to take "off-job" employment to adjust traditional source of revenue/income. This way of life highlights and simultaneously declines the poverty level. GDP per capita is significant if it translates really and sensibly a decline of poverty per capita. The share of salaried and informal self-employed compare to the available la-

[499] Field research: Most of the time, wage are not adjusted to inflation. If there is an adjustment, it comes 1 to few period later. Anyway, neither the wage nor the hypothetic adjustment is adequate to price.

bour force helps to determine the dependency[500] ratio within the population. The size of the labour force is already biased by gender discrimination through the so-called "gender invisible labour", by child labour and heavily by the IS. The exercise will use the elasticity coefficient for employment related to growth in the line of responsiveness of employment to growth. On the other hand, it will use the disaggregated changes in output overtime.

After the oil crisis of the 70s, poverty systematically and progressively increases in urban as in rural area. The period of decline matched with the change of government in inverse proportion e.g. real wage and growth in relation to poverty. Although in Benin the economy looks like hire and fire, the steady increasing informalisation led to a relative alleviation of poverty by improving people capacity and capability.

The basic step is a correct and updates data[501] on the population, the local labour force and all kind of employment. The exercise will better focus the trend than on the fluctuation. At least 5 surveys have to be available: demographic survey usually on decade or half-decade on the period from 1960 to 2010, plus the Annual Labour Force Survey, GDP Structure on the same period. Out of such specific data, one could evaluate the change in the country during the same period of time. Even at the ILO, it was not possible to find adequate data source of *Annual Economic Surveys*. The same problem appears by the National Bureau of Statistics (INSEA).

For the design of the employment policy, the decision-makers have to take into account the source of job creation and sustainability. At least the half of the country remains in agricultural and/or pastoral economy. The core problem of an employment strategy is based on the structure of the available labour force. On the one hand, we do have a very young population with employment surplus although with a light tendency to fall/decrease included the withdrawal of people at working age and the positive raise of women participation. On the other hand, out of the surplus of labour force, the un- and under-employment are still endemic and concordant to the level of development. At the time of

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[500] Dependency concerns those members in family and/or community depending on the breadwinner.

[501] The lack of institutions and capabilities bias substantially the available data resources and the rare specific surveys

globalisation, the salaries flexibility will surely worse the context if the government does not reconsider the following aims:

- Education and training for competitiveness.
- Full integration of women in labour force and in the whole economy, and to forbidden child labour.

Henceforth, employment strategy cannot only focuse one sector e.g. agriculture. For instance, in a period of 10 years the strategy will be bedded in a cross-sectoral network: from agriculture over its connex activities (manufacturing) to industry and services over trade, retails and social infrastructure by improving productivity and participation from the periphery to the centre. The output of this strategy is the poverty alleviation and the reinforcement of people capacity and capability in urban as in rural area as also to develop Human Capital. As in the case of auto-centred development such as South Korea or India, particularly in employment strategy, the basic step is toward manufacturing (off-agriculture) with an adequate trained labour force.

The crucial role of manufacturing is to be job multipliers sustain by the domestic and foreign investments in the industry. The sectors on which one should pay attention are the micro, the small and medium enterprises (MSME) because of their number, so then of their capacity of labour absorption. Government must tackle this opportunity in order to develop specific measures to enhance employment and growth in the MSME. We can make some propositions in this line:

– Decentralisation of the set of requisite e.g. education, health, nutrition, employment, from the capital down to the smallest village per delegation of competency in the building of social infrastructure and services, therewith to increase labour and wage in the local MSME.

- Extension and enforcement of agro-reform, particularly in the owner and tenancy rights.
- Implementation of well designed and structured cross-sectoral co-operative with the purpose of export.
- Improvement and development of skill base, training, and education.
- Micro-finance development and facilitated access to credit.
- Improving demand for the MSME.

The efforts for the disparate large size manufacturing will focus on demand side e.g. domestic consume for the first period and progressively move into high value-added production for export. The Board of Investment (BoI) will improve the social climate for investment (domestic and foreign). Furthermore, together with the government industrialisation's program, the BoI will reinforce the utilisation of local resources and capacity, the regional integration (demand side up to specialisation).

An employment growth strategy for the future must be built with three aims:

- The growth of output and employment in the manufacturing sector;
- The limitation of increased labour absorption in agriculture;
- The promotion of dynamic sub-sector within the MSME sector.

The overarching objective of these aims is to revive national growth in such a way that its employment multiplier effects in the economy are significant and there is minimum downward pressure on productivity in agriculture[502]. Benin is at the top of the list where a large proportion of rural people are near-landless household farmers, people with a limited potential of good cropland for "poor man's crops" and disparate opportunities. Benin agriculture is not powerful but mostly of subsistence with low productivity. Only its capacity and capability to expand horizontally have achieved to feed its labour force and the population growth in some region with the same dynamic in environmental degradation.

This situation leads to an important migration to the urban area (over crowed slums), to a sensible increase of informalisation (self-employment, survival activities), and to endanger progressively the national food security. The remedy is the so-called *"community leads project"*, a kind of decentralised but participative and assisted community. Its role is for instance to spray the "green revolution", the technology and to reallocate equitably community's land to the near-landless and the landless; thereby to involve micro-farmers up to industrial farmers.

These community activities are parallel to the investment in infrastructure, the improvement of rural structure as a whole, and the creation of "off-farm" income. This program must aim to slow migration to urban area, to secure and

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[502] See "Pakistan: Employment, Output and Productivity" by Nomaan Majid et al. in Issues in Development – Discussion Paper no. 33, ILO, Geneva 2000.

sustain national food security and to create job in rural area, so then to upgrade life standards. In this order, it is obvious that Benin, within the period of the program should not let the market open to *import challenge* such as the US- and the EEC-agro-surplus to undermine the local producer's revenue. For a while, a genuine regulation and protectionism can help find a new orientation and security for small producers and food. Attention accorded to subsidies and subventions has testified that they shift, twist even worsens competition, and they disadvantage small farmers in "poor man's crops"; thereby bring the adverse effects as in "import challenge".

An equitable subsidy/subvention will push less productive area in high productivity, promote labour intensive production, assist micro- and small-farmers in order to upgrade their own existence and tackle the price distortion. Further, a program of training and education will cover the rural population. Not only for a better production, saving plan and rational work and production process but more for children primary and qualitative education out of gender.

This has a double edge. On one hand, children are getting a better springboard for their future. On the other hand, educated women are the best family planner and household manager; it facilitates their entry in labour market. Children at school produce a labour vacuum, an opportunity for adult searching for work.

A closer study on agriculture in Benin demonstrates that: agriculture and its connex activities are the most heterogeneous employers and they "surf" between informal (casual underemployment) and formal full time jobs. The proportion of formal employment is far less than the national average and urban average. Further, the determinants in agriculture are exogenous factors such as education level of the farmer, weather, soil quality for the output. Because of soils availability, small farmers have an efficient use of labour and soils e.g. small scale agro-intensive whereas, a big farmer is likely agro-extensive with low mechanisation. Technological inputs (mechanisation, fertilizer) and agro-intensity (high growth plants) increase the casual work so then unemployment by producing high-value-added outputs.

Agriculture is also not fully covered by useful data because of its heterogeneity with its hidden regenerative loan. In the pyramid of social standards and wage, from the bottom to the top, we found out that the bottom is covered by the unemployed, follow by the casual workers and the underemployed than the

MSME (most in IS). Over 60 % of the labour force belongs to the above categories, although they may work longer than in formal sector per day and week.
N.B. To sustain an average growth rate excess of 4 %, the agriculture needs to diversify e.g. goods, services, and employment, with a high domestic demand consequent to a rapid growth in industry, urban area, and technology spray even from abroad. Further, better fiscal policy (tax etc.) to create more opportunities and incentives are needed.

5.2 Analytical Approach of Employment

We have already mentioned the double edge occurrence of the government, which allow to perceive the "place-fee" in the IS. This in turn means that in each community, it is well known which activities and operators exist: source, size, type even capital/finance. The high heterogeneity of the "IS" is not the matter of the discussion, but rather the way to find a lean integration of the IS in the design of a genuine and adequate employment policy. Following propositions as inputs could be made in order to reinforce the decision-process:

5.2.1 Institution

Do the policy-makers have a precedence or existing institution specialized on IS? The need of this instance is obvious, because government must know with whom it has to deal in order to exploit experience and know-how. This institution could be a secretariat of state. In fact, the operators of "IS" need also a focal point, a reference to report their problem over the unions, associations, and guilds. In return, the program will cover the both sector in cohesion and coherency. The institution has to retain that people/agent creates black-market/marginal operations to avoid control/regulations and hand-over by using the weakness of the system. For the IS cooperation, the institution will provide in change meaningful incentives.

5.2.2 Information

It is necessary to analyse the useful pre-requisites e.g. real market, required qualification, and resources availability. By the appearance of data's lack, the team will work with the representatives of each segment of the IS and will help to find out the adequate responses/information. Already, one can notice that a

well-trained representation is meaning. These operators must be tied to the design of the program and further, to facilitate their access to registration with other adequate incentives (training, finance, business opportunities).

5.2.3 Analysis

The analysis will take place out of gender discrimination of the classified segments of IS in order to determine the range of competitiveness, the structure of the activities e.g. source, size, typology and finance/capital. In a second step, the analysis will cover their opportunities of growth and sustainability, the modalities to upgrade life and work standards, to resolve their problems and difficulties intra- and inter-sector activities.

5.2.4 Specificity

Local specificities can vary within a country from region to region, from locality to locality. They depend on exogenous as endogenous factors e.g. geography, topology, soils, weather, culture and traditional way of life etc. The local specificities are unavoidable by the analysis of the "job creators and income generators" so to reinforce the selected segments on the market. This includes the activities with potential development as the pioneers.

5.2.5 Education

As we have experienced by field research, informal training of handcraft is a *"patchwork"*[503], unable to diagnose the source of a problem. This is common in Benin. The introduction of a dual system such as in Germany will establish core activity standards which is covering the needed skills (at the present as for the future), the basic sense of decent work e.g. healthy and safety, and answer the questions about the category of people which has to be trained, them wage, flexibility and mobility. Over this dual system, it is easy to upgrade the knowledge and skills of the employees, of the trainee, and of the apprentices i.e. adequacy to the technology.

Once again, two strategic points are the cost-use-analysis and the finance. Policy-makers could refer to South Korean experiences and procedures belonging to the so-called *"auto-centred development policy"*. Certainly, they have to be

[503] A pure repetition of work process.

adapted and updated to the new context. The results may be lower but anyway positive.

5.2.6 Finance

It is somehow surprising that the government of Benin allows itself one of the greatest lost in form of short-term dividend on savings and credits. Nobody in the country does tied the activities of informal financial sector in Rotating Saving and Credit Associations to the national micro, small or medium finance institution. In the last years, government has understood the flows of capital and the need to co-operate with poor people. Since, a large effort has been done; institutions exist and contribute to poverty reduction. The appearance of the government in this segment has introduced standards, which minimise default risk and transaction costs, by the way sharped competitiveness. Control on the members lay on the operating associations, unions and/or guilds of the segment/activity.

One of the West Africans' phenomenon by the field research is that, women are wide better borrower, safer and saver than men; out of their discriminative position (education, opportunities as a whole), women are better manager of their own finance.

5.2.7 Teamwork Cross-Sector

This is a point where the segment analysis of Michael Porter is meaningful to help by the design of strategy, promotion/development and growth on market. For the MSME in IS, a possible joint-venture or cooperation with the formal sector will lead to upgrade their position in trade of goods and services, transfer of know-how and/or materials, resources; so then facilitate the access to any kind of contracts in public as in private sectors, etc.

5.2.8 Design and Implementation

In this case, it is absolutely not to be considered as a casual trend but rather a permanent one. By the design of specific policy/reform/program or project, it will be meaningful to retain, to take into account the endogenous factors in the chosen area by involving in a participative way the community representatives in the decision-making. This means that the main line decided at the national

level are flexible enough and able to be adapted at the level of a smallest village. Otherwise, the IS will still a real refugee and a sponge of public failures. Consequently, the chosen tools are adequate and efficient to tackle the problem of employment. In this order, it is important to mention the *"critical-mass of tools"*, their coherency and cohesion, as the anarchic occurrence between the actors on one hand, and between the actors and tools on the other hand, because they will sensibly bias even jeopardise the target with adverse effects. The aim is to reinforce the cohersitive abilities of the government's partners.

6 Conclusion

Work, however when it is approached in our case of Benin, it will still be conditioned by the level of education, the finess, the nutritional status of the employee and not at least the power of its Trade Union. The aspects of the informal sector regulation and that of intensive work projects such as the development of national infrastructure are to be seriously considered.

Chapter VI: Work and Health in Benin

Health and Nutrition sustaining of Human Capital Building

"Poor people suffer worse health, (although) health is (...) a crucially important economic asset, particularly for the poor (...). Their livelihoods depend on it"[504].

1 Health under Pressure: The Elements that may bias all Policies

In this paragraph, we will see how poverty, lack of education and of income are a huge handicap for a good health in Benin.

1.1 Poverty Pressure

Poverty[505] has a negative and significant correlation with the education level in Benin. In other words, poverty and mortality decrease as the education level increases. Thus, according to SCRP 2007, households headed by someone with no formal education are 2.5 times more likely to suffer from nonmonetary poverty than those headed by a person with primary education. This ratio is 10.8 when households are headed by someone with secondary education and 29.2 for higher education. The ratio ranges from 1.1 to 5.5 for income poverty[506].
Besides and following the same results[507], for two households of the same size and in the same location, the one headed by a person who has completed four years of the primary school will, on average, have a level of consumption that is 14 % higher than the one in which the head of the household has not re-

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504 See "Poverty and Health in Developing Countries: Key Actions" in OECD Policy Brief November 2003, This *Policy Brief* is based on the *DAC Reference Document on Poverty and Health*, prepared by the DAC Network on Poverty Reduction and jointly published by the OECD and the World Health Organisation (WHO) in 2003, p. 1.

505 See Benin's poverty profile (in, "Poultry-based intervention as tool for poverty reduction and gender empowerment: empirical evidence from Benin." PhD. Thesis by *Sodjinou, Epiphane* at the Institute of Food and Resource Economics, University of Copenhagen/Denmark, 2011, pp. 39-41) under http://curis.ku.dk/ws/files/33324451/Thesis_Sodjinou_February_2011_VF.pdf.

506 See SCRP, 2007.

507 See SCRP, 2007.

ceived any education. The relationship between poverty and the employment of the households' head[508] states that the weakest monthly incomes per capita, below the national average of 20,593 FCFA, are amongst households engaged in agro-pastoral activities (subsistence agriculture, fishing and livestock), handicraft and small businesses. Following the same author, among the households practicing agriculture as the main or secondary activity, those that do not use any improved inputs (apart from seeds) make up a high proportion of the households in food insecurity (18 %) or food insecurity risk (18 %) than those using improved inputs, 10 % and 11 % respectively.

Furthermore, households whose head does not belong to a farmers' organization are also more represented among households in food insecurity (16 %) or food insecurity risk (16 %), than those belonging to an organization, with 10 % for both rates. In summary, poverty is widespread in Benin and rural areas suffer from a substantially greater prevalence of poverty than urban areas. In terms of monetary poverty, the two poorest departments are Couffo (40.6 %) and Alibori (43 %). In terms of non-monetary, the two poorest departments are Atacora (72 %) and Mono (59.5). When comparing the urban and rural households, the differences in the incidence of monetary poverty are low: 35.04 % urban 38.82 % rural areas. It is the same in terms of subjective poverty. In contrast, the approach in terms of monetary poverty reveals a considerable gap, if only 18 % of urban poor evaluate themselves in terms of assets and living conditions, this rate reached 54.2 % in rural areas.

"The Gross Domestic Product (GDP) per capita in Benin was last recorded at 827.20 US dollars in 2015. The GDP per Capita in Benin is equivalent to 7 % of the world's average. It averaged 631.30 USD from 1960 until 2015, reaching an all time high of 827.20 USD in 2015 and a record low of 503.53 USD in 1962"[509].

For the GNI, we have following increasing results[510]:

GNI 2005: Gross national income per capita (current US$)	530.4
GNI 2010: Gross national income per capita (current US$)	684.0
GNI 2013: Gross national income per capita (current US$)	800.9,

[508] See AGVSAN 2009: 76.

[509] See http://www.tradingeconomics.com/benin/gdp-per-capita.

[510] See http://data.un.org/CountryProfile.aspx?crName=BENIN.

whereas the Human Development Index (HDI[511]) 0.48, Rank 166 in 2014. Between 2002 and 2006, income per capita has increased slightly, while income inequality *(Gini index)* was reduced but in 2011 it was at 43.5[512]. "Growth in 2014, estimated at 5.5 %, was driven by the agricultural and services sectors and by the country's dynamic construction industry. Based on the implementation of the structural-investments programme, growth is projected at 5.6 % in 2015 and 6.0 % in 2016, but will depend on how the political and social environment evolves"[513]. The greatest fear of policy designers is the fact that population increases so rapidly, that all their program's projections and prognosis will deny. In this case, the population growth rate[514] (average annual %) 2010-2015 is 2.7.

According to the INSAE Report of 2009, more than half of the population of Benin, roughly 51.6 %, live with less than $US 1 per day. The level of *monetary poverty*[515] increased from 28.5 % in 2002[516] to 33.3 % in 2007[517]. The poverty records[518] for 2011 some quite worry-grabbing results:

Poverty headcount ratio at $1.90 a day (2011 PPP) (48.9 % in 2003 to 53.1 % of population 2011), Poverty gap at $1.90 a day (2011 PPP) (16.3 % in 2003 to 19 % in 2011), Poverty gap at national poverty lines (10.4 % in 2009 to 9.8 % in 2011), Poverty headcount ratio at national poverty lines (37.2 % of population 2006, 33.3 % of population 2007, 35.2 % of population 2009, 36.2 % of population 2011), Rural poverty gap at national poverty lines (10.1 % in 2007, 11.6 % in 2009, 10.5 % in 2011), Urban poverty gap at national poverty lines (8.5 % in 2007, 8.5 % in 2009, 8.8 % in 2011 and still increasing all over.

Non-monetary poverty[519] decreased from 43 % in 2002[520] to 39.7 % in 2007[521]. Non-income poverty registered a substantial decline of 9 percentage points, falling from 39.9 % at the end of 2007 to 30.85 % in 2009[522].

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511 See http://hdr.undp.org/en/countries/profiles/BEN.

512 See INSEA, Report 2008.

513 See http://www.afdb.org/en/countries/west-africa/benin/benin-economic-outlook/.

514 See http://data.un.org/CountryProfile.aspx?crName=BENIN.

515 The rate of monetary poverty is the proportion of the population living below the income poverty line.

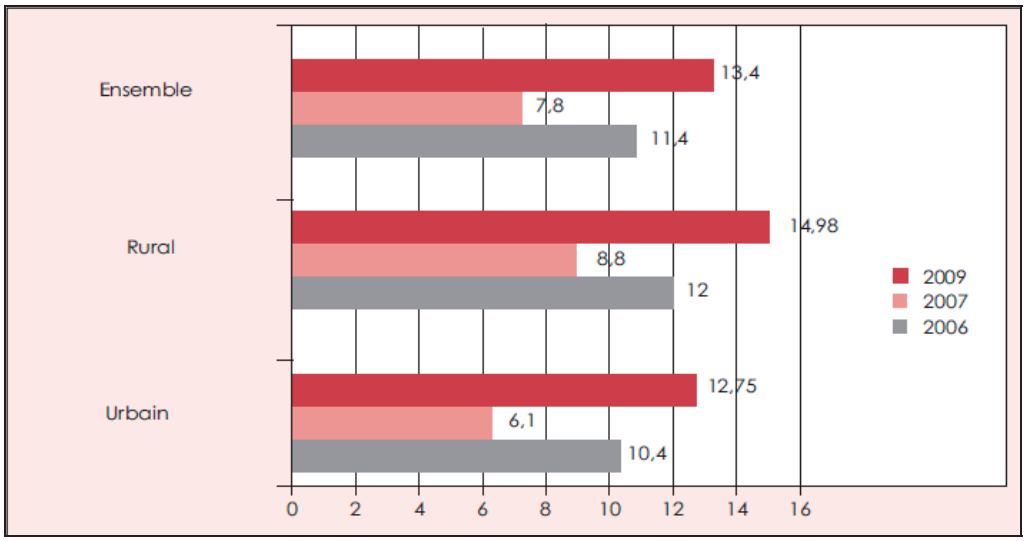
516 See SCRP, 2007.

517 See INSAE, 2009.

518 See http://data.worldbank.org/indicator/SI.POV.DDAY?locations=BJ.

519 Non-monetary poverty is the level of poverty defined on the basis of the material life conditions of the population.

Table 19: Breakdown of Hard-Core Poverty in Benin between 2006 and 2009 (%)



Source: INSAE, EMICoV, 2010; Ensemble = Total; Rural = Rural; Urbain = Urban
Quoted by https://www.imf.org/external/pubs/ft/scr/2011/cr11307.pdf

Regarding *subjective poverty*[523], 38.7 % of households believed that they had difficulty for living in 2006. All these explanations show that poverty has increased during the past decade. Poverty is more prevalent in rural Benin. In 2007, the incidence[524] of monetary poverty was 36.1 % in rural areas compared to 28.3 % in urban areas. The incidence of non-monetary poverty in rural areas (46.9 %) is almost twice the value observed in urban areas (27 %). Moreover, 61.5 % of the rural populations live with less than one dollar a day compared to 34.3 % in urban areas. Also, the proportion[525] of people suffering from food insecurity in rural areas is about 15.3 % compared with 7.9 % in urban areas.
"Between 2006 and 2007, income poverty fell by roughly 4 percentage points, versus 2.4 points in the case of non-income poverty. Between 2007 and 2009, income poverty rose by 1.9 percentage points. This increase in income poverty between 2007and 2009 is the result of the effects of the economic and financial crises, which caused household consumer spending to fall"[526].

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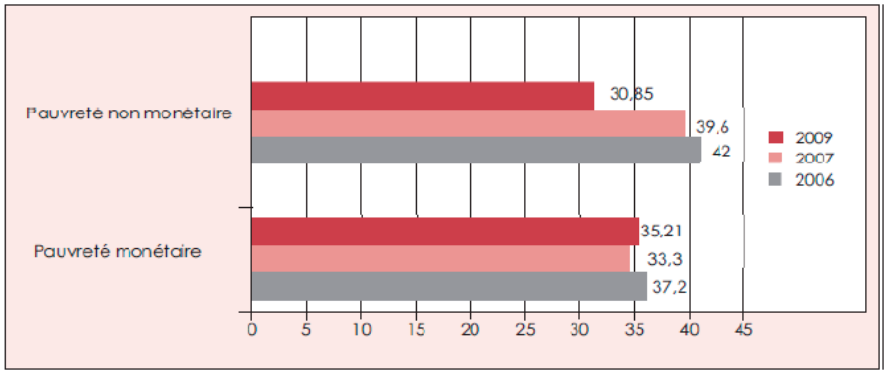
520 See SCRP, 2007.
521 See INSAE, 2009.
522 https://www.imf.org/external/pubs/ft/scr/2011/cr11307.pdf.
523 Subjective poverty measures the people's perception of their own life conditions.
524 See INSAE, 2009.
525 See AGVSAN, 2009: 4.
526 https://www.imf.org/external/pubs/ft/scr/2011/cr11307.pdf.

Table 20: Poverty Trend (percentages)



Source: INSAE, EMICoV, 2010, Pauvreté non monétaire = Non-income poverty, Pauvreté monétaire = Income poverty. Quoted by Quoted by https://www.imf.org/external/pubs/ft/scr/2011/cr11307.pdf.

There is a strong spatial dimension[527] to rural poverty in Benin. In fact, according to data from the INSAE (2009), the North has the highest rate, 71.8 % of rural population living on less than one dollar a day compared with 56.5 % for the Centre and 60.1 % for the South.

National[528] monetary poverty increases from 35 % in 2009 up to 36,3 % in 2011. We have to mention that the best scores of 28,5 %.in 2002 and 33,3 % in 2007 were registered. In the way to reduce the rate of population living with less than one dollar per day 1990-2015, the program has to attack following issues[529]:

- Proportion of population on less than a dollar a day in purchasing power parity (PPP): 53.9 %
- Incidence of poverty: 36.2 %
- Ratio of Poverty Gap: 0.271
- Share of poorest quintile in national consumption: 6.1 %.

Sustained economic growth achieved over 10 years is not enough to ensure the entire population an income above the poverty line. This relative weakness of growth, coupled with the ineffectiveness of fair distribution of growth[530]

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527 See: 2.2.1 Benin's poverty profile (in, "Poultry-based intervention as tool for poverty reduction and gender empowerment: empirical evidence from Benin." PhD. Thesis by *Sodjinou, Epiphane* at the Institute of Food and Resource Economics, University of Copenhagen/Denmark, 2011, pp. 39-41) under http://curis.ku.dk/ws/files/33324451/Thesis_Sodjinou_February_2011_VF.pdf.

528 See http://www.bj.undp.org/content/benin/fr/home/post-2015/mdgoverview/overview/mdg1.html.

529 See http://www.bj.undp.org/content/dam/benin/docs/gouvernance/rapport_final_evaluation_maep-benin_boko_hodonou_Sept_2014.pdf.

530 See Republic of Benin, Poverty Reduction Strategy Paper of Benin 2003-2005, December 2002, p.1; PRSP.

measures justifies the increase in poverty and inequality, especially in rural areas, continuing a trend already observed in the 1990s.

Despite a statistically significant increase in rural poverty in general, the slight improvement in the Human Development Index (HDI) from 2005 to 2012 (which increased from 0.414 to 0.436) suggests that the increase in poverty was mainly monetary while non-income poverty had improved[531]. The North has also the highest rate of rural population living below the monetary (39.9 % compared with 32.1 % in the Centre and 34.3 % in the South) and nonmonetary (53.9 % compared with 41.9 % in the Centre and 45.7 % in the South) poverty lines. The net rate of schooling and literacy is also weak in the North compared to the Centre and the South of the country. The percentage[532] of the population living in food insecurity is 13 % (in the Centre) and 15.3 % (in North). A little amelioration was recorded in the following years up to 2014.

1.2 Demography Pressure

The poverty landscape of Benin is also reflected into the demography so then, put a heavy pressure on project and reform finance. Along this chapter, we have to keep in mind that education has a direct impact on Health status through birth regulation, health prevention and care, and not at least nutrition.

Benin's population is growing rapidly. Benin is still having one of the highest natural growth rate in the sub-region (+2.96 % per annum against 2.64 % average of West Africa). "January 1st, 2016, the population of Benin was estimated to be 11 027 717 people. This is an increase of 2.69 % (288 561 people) compared to population of 10 739 156 the year before. In 2015 the natural increase was positive, as the number of births exceeded the number of deaths by 290 709"[533]. This is largely due to the control of its high fertility rate of the population. The latter is estimated at 5.7 children per woman (DHS Demographic and Health Survey 2006). The situation of high fertility in Benin also explains the very "crushed" form of its population pyramid; a pyramid that has an extremely large basis of age. This high fertility may place a considerable burden even jeopardize the economic and social development.

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531 See http://www.bj.undp.org/content/dam/benin/docs/gouvernance/rapport_final_evaluation_maep-benin_boko_hodonou_Sept_2014.pdf.

532 See ibid.

533 See http://countrymeters.info/en/Benin.

If we do consider the state of reproductive health[534] in Benin in comparison to the rest of SSA in a period from 1995 to 2008, Benin has made a substantial progress at the end of the period until now (2015[535]). Reproductive[536] Health is covering: contraceptive prevalence, unmet need for contraception, pregnant women who received prenatal care, newborns protected against tetanus, births attended by skilled health staff, maternal mortality ratio, lifetime risk of maternal death, fertility rate, and age at first marriage. Population record of 2000 had showed that the average age at first female marriage in Benin was 20 years. Commonly, the large interval allover SSA is between 14-18 years. Male age at first marriage was not recorded. In Benin, marriage and pregnancy are greatly influenced by the level of education reached by each parent. This level helps to delay the age of marriage and first sexual relation among women. This delay is about 3.5 years, respectively 19 years uneducated up to 22.5 years for having the secondary cycle 1 or more. Beninese women fecundity life decreased from 6.3 children in 1996 to 5.7 in 2006, 4.9 in 2011-2012 and 4,8 in 2014[537]. The average number of children in urban areas is 4.3 against 5.4 in rural areas and 3.6 in Cotonou as the best extreme.

This change is more noticeable according to the educational level: 5.6 children among those with no education down to a minimum of 3.3 children among those of high school 2nd cycle. Among adolescents aged 15-19 who have already had a birth or are pregnant for the first time, 21 % live in rural areas against 7 % in Cotonou. However, 32 % of these girls are uneducated while only 3 % have a high school 2nd cycle or more. According to UN projections, the population will grow from about 8.4 million in 2008 to over 16 million in 2025, this in a state of acute deficiencies of the educational and health infrastructure. Shadow of the Malthusian Theory will affect government policy, thus severely limit the ability of Benin to develop and acquiring wealth.

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534 See table: Reproductive Health under http://ddp-ext.worldbank.org/ext/ddpreports/ViewSharedReport?&CF=1&REPORT_ID=10314&request_type=viewadvanced&HF=N.

535 See http://databank.worldbank.org/data/reports.aspx?source=health-nutrition-and-population-statistics.

536 See World Bank in "Thematic Data: Health, Nutrition and Population Data and Statistics", the World Bank, Washington, DC, 16th November 2016 at 5:20 PM under http://datatopics.worldbank.org/hnp/ThematicData

537 See http://databank.worldbank.org/data/reports.aspx?source=health-nutrition-and-population-statistics.

1.3 General Situation of Health

If we keep in mind "the devil cycle of disease" from Gunnar Myrdal, we have a better view on Health and its burden for poor people. A cycle actually builds up by education, nutrition, illness and work. If one of these factors is not secure, put under control, poverty and/or death stay at the end. In this mean, the aspects nutrition and poverty will be done/examined in this chapter because the aspect health is with nutrition too inter-related, therefore undissociable. The main question is to design and to implement an affordable, efficient and equitable health care system associated with a basic health insurance in the aim to cope to poverty and to the endemic day by day survival of people. By the same way, it is very important to take care of food security for all. Along this chapter, we will notice how illness is one of the most virulent sources of impoverishment for the poor and the development of health in Benin.

After the independence, public health care provision was designed with cost recovery collected at the point of use in form of "user fee". Later on, researches have proved that this strategy has some important negative effects on the national health care system. The access for vulnerable and weak people is all ready out of question, a pure *adverse selection* in form of cost barrier that can lead to a pandemic[538] in the country. The access to the care facilities becomes impossible to people relying on their labour to generate a "survival income". Hence, they drop down the utilisation of these facilities and delay their therapies for money, so then their later treatment becomes very expensive or they just left without paying the bills[539].

The so-called "out-of-pocket-payments" is the traditional form/way to access health care in Benin, except a few private-public schemes in few rare cases. Although commonly this payment amounts to 30-40 % of the total health care expenditure, it also bears a high risk of "household bankruptcy" in form of impoverishment (loss of the ability to work so of income, lost of saved capital and other reserves, sell of assets, etc.).

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538 See Sauerborn, R.; Nougtara, A.; Latimer, E. in, "The elasticity of demand for health care in Burkina Faso" by Health Policy and Planning no. 9, (1994), pp. 185-192 and Booth, D.; Milimo, J.; Bond, G.; Chimuka, S. in, "Coping with cost recovery", Report to the Swedish International Development Authority, Development Studies Unit, Department of Social Anthropology, Stockholm University, Stockholm (1995).

539 See Musau, S. in, "Community-Based Health Insurance: Experience and Lessons Learned from East Africa" by Technical Report no. 34 for Partnerships for Health Reform Project, Abt Associates Inc., Bethesda, MD. 1999.

Out of the table 21 below, we can see that within a decade, the amount of private expenditure decreases near by 20 % point from 2005 to 2014 whereas the total expenditure by 10 % point. The system of "out-of-pocket-payments" is still actual in Benin, but the increase availability of the "care station/dispensary" for preventive and minimal care offered by the health zones, associations, religious and charitable organizations appear to be the great help that the poor of Benin have ever enjoy but not enough to satisfy demand.

Table 21: Care Expenditure of the Household

	2005	2008	2011	2014	2015
Out-of-pocket health expenditure (% private expenditure on health)	94.9	91.1	787.9	76.7	""
Out-of-pocket health expenditure (% total expenditure on health)	47.7	44.7	35.9	39.1	""
Risk of catastrophic expenditure for surgical care (% people at risk)	""	""	""	68.5	""
Risk of impoverishing expenditure for surgical care (% people at risk)	""	""""	""	74.5	""

Source: World Bank Statistic on Benin September 23th 2016 at 11:00 AM under http://databank.worldbank.org/data/reports.aspx?source=health-nutrition-and-population-statistics.

Over the lack of qualitative health care and facilitated access we have the so-called "adverse selection" blocking the poorest users. The elements of the adverse selection by the use of health services are: too high user fees plus "informal payments"[540] – religion and cultural handicaps – fearing[541] the health workers. These elements can bias the effort to upgrade health situation of Benin. On the other side, the causal relation between mortality and causes is also twisted by collateral source of diseases. For instance, although infant mortality has significantly decreased due to vaccination campaign in Benin, it remains at a high level because of 3 other factors: malaria, malnutrition and neonatal causes. This result is also reported in the 2011 Report of the Ministry of Health that has established that the major diseases affecting children are malaria, acute respiratory infections and gastrointestinal illness and they are lethal for the patient. Benin has high death rates at all ages but it is still declining[542]. In al-

[540] In other words: bribes, corruption, etc.

[541] Poor people coming even in emergency are commonly neglected or insulted because they are poor. On the other side, the health workers want to keep the health care for relatives.

[542] The infant mortality rate decreased from 89‰ in 2001 (EDSB-II) to 67 ‰ in 2006 (EDSB-III) See "Demographic and Health Survey (EDSB-IV) from 2011 to 2012".

most 30 years from 1987 to 2014, the quality and coverage of medical services have improved tremendously, especially with the creation of health zones. Medical protection of child and mother is ensured in many cases.

According to the World Bank[543] Report on the health in Africa, the informal sector and the rural population have none social protection. The report had just ignored that the network and the informal assistance between people build up a safeguard for those most disadvantage. It is to notice that there is a big change occurred in the formal system. Government tries to support also private coherent and efficient project in health sector. Since the associations, religious and charitable organizations appear on the scene and in the health sector; different schemes to provide health care for people and reduce poverty take place. One of these schemes is the so-called "Community-based Health Insurance" a non-profit pro-poor scheme, most of the time applies for the informal and rural sector as for the self-employed.

Membership is voluntary. This scheme operates in the locality and has different size according to the number of its members. It may cover some 100 handcrafts/traders or a local gild of handcraft up to 100.000 members in other areas or towns. Concerning World Health Organisation (WHO[544]), the health situation in the Developing Countries brings over 1,3 billion people bearing some 93 % of the World disease burden and they are absolutely lacking health care. By the way, the question on Private Health Insurance (PHI) in Developing Countries concerns the evaluation of the potentials and risks as the advantages e.g. the outcomes that the PHI markets are able to provide. Prior to this question is the analysis of the access and affordability of health care e.g. the financial protection of the poor in these countries.

2 The Important Problems of Health

This paragraph will try to present the way how health care is ruled, managed, whereas it is confronted to divers' problems, to explain the actual situation of

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543 See World Bank Report: "Better Health in Africa: Experience and Lessons Learned", Washington, D.C. 1994.

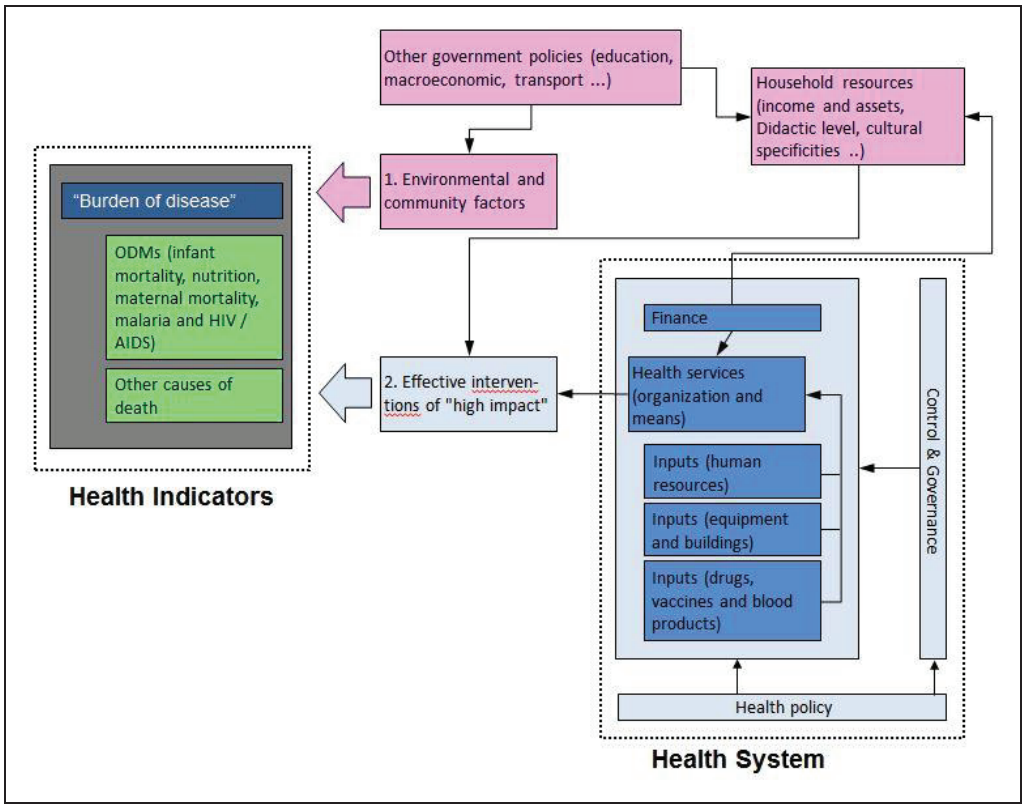
544 See the report: "Regional Overview of Social Health Insurance in South East Asia" by WHO-New Delhi, 2004, and, "World Health Report 2005: Statistical Annex, table 5: Selected National Health Accounts Indicators – Measured Levels of Expenditure on Health 1998–2002", WHO, Geneva, 2005.

health inside Benin and the efforts to advance the level of Health Care, and not at least, the cooperation with IHP + (International Health Partnership Plus).

2.1 The Analytical Framework of Benin Health

After the consideration of all issues of health and nutrition, their analysis leads to a logic[545] which is illustrated below. As this chart shows, the logic followed was to analyze indicators of health, then go back to the various constraints that may explain shortcomings in the health indicators.

Figure 4: Benin Health System



Source: Report No. AAA51-BJ, by the World Bank, Human Development Africa Region and the Ministry of Health in Benin, May 2009.

Once again, there is a closer relation between education, health, and nutrition. They are all together conditioned by the purchasing power i.e. income level of the household. Upgrade the inputs and facilitated accesses to education and to health care services automatically decrease the size of the family. This is not an academic assumption but a day-by-day reality in the Benin. Therefore, Benin makes a huge effort toward family planning, children welfare; health and edu-

[545] Report no. AAA51-BJ, by the World Bank, Human Development Africa Region and the Ministry of Health in Benin, May 2009.

cation are to empower women with the participation of their partners. In fact, the capacity and capability for a person to work depends on his/her health, nutritional and educational status. Good health outcomes are translated into efficient performance of the worker and contribute to development of oneself and that of the nation. A country that has improved the national health status of the citizens is also more productive with a high national output and per capita. It has a rising accumulation for generation in intellectual capital, the pattern[546] of its demography and "dependency ratio" will tend to downward (fertility and mortality as the relation active worker to dependents).

If we selected the 4 most common health problems: the malaria-related mortality, infant mortality, child malnutrition, maternal mortality and HIV/AIDS. For each, we tried to analyze the bottlenecks in the chart[547] above with respect to (i) environmental factors and community and (ii) the coverage of interventions called "high impact" (births attended by skilled personnel to maternal mortality). For high impact health interventions, once the bottlenecks is identified, we sought to link them to the various components of the health system (the low impact of assisted birth related to insufficient quality of staff). Indicators of health, practices of communities and households deal with the points i) and ii) for each of the four identified problems.

2.2 Health Endangering Sources

At first, let us consider the growth process of a child. At its pre-natal stage, mother and unborn child must have a balanced diet and medical treatment (prevention and cure). Breastfeeding under these both conditions until 9 months is required, because mother's milk is still better than others to protect this child. The last 3 months for going to 1 year, this child need more fats and proteins to balance its diet and improve its immune system. The poorer the parents of this child, the more it is exposed to illness; so then loosing weight and size that it could never make up. This lesson establishes already the correlation between child malnutrition and absolute poverty. Moreover, it is an ade-

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546 See "Poverty and Health in Developing Countries: Key Actions" in OECD Policy Brief November 2003, This *Policy Brief* is based on the *DAC Reference Document on Poverty and Health*, prepared by the DAC Network on Poverty Reduction and jointly published by the OECD and the World Health Organisation (WHO) in 2003, p. 2.

547 See Report no. AAA51-BJ, by the World Bank, Human Development Africa Region and the Ministry of Health in Benin, May 2009.

quate indicator for living standards as the national or regional individual calories intake.

At second, let us have the look at the major vectors of sickness in Benin. They are: drink water supply – hygiene – sanitation. Water is like famine; it is not a matter of resource but of distribution and allocation of this resource. Mainly, the problem[548] of drinking water turn around pollution, wastage (more than 50 % unaccounted water in some cities of Sub-Sahara Africa), lack of facilities and mismanagement. This situation can be seen in Cotonou/Benin as in other capitals cities of SSA.

In table below, the situation of drinking water and sanitation has made huge effort of improvement of the demands. This increase is steady and constant.

Table 22: Drinking Water and Sanitation

	2005	2008	2011	2014	2015
People practicing open defecation (% of population)	63.5	60.2	56.9	53.5	53.3
People practicing open defecation rural (%of rural population)	82.7	80.3	78.0	75.6	75.6
People practicing open defecation urban (% of urban population)	34.6	31.4	28.1	24.9	24.9
Improved Sanitation facilities	14.5	16.2	17.8	19.6	19.7
Improved Sanitation facilities rural (% population with access)	4.9	5.7	6.5	7.3	7.3
Improved Sanitation facilities urban (% population with access)	29.0	31.2	33.4	35.6	35.6
Improved water source (% population with access)	70.3	72.8	75.3	77.8	77.9
Improved water source rural (% population with access)	63.4	66.3	69.2	72.1	72.1
Improved water source urban (% population with access)	80.6	82.2	83.7	85.2	85.2

Source: See World Bank Statistic on Benin under http://databank.worldbank.org/data/reports.aspx?source=health-nutrition-and-population-statistics.

In case of water supply, it must be in its structure deeper changed. It is not admissible that over 50 % of a "scarce resource" such as drinking water can be wasted and this in poor Benin. Since the colonial time over the independence

[548] See "Access to Drinking Water and Sanitation in Africa" by Céline Kauffmann, OECD Development Centre, Policy Insights, no. 41, April 2007, based on the African Economic Outlook 2007, Published jointly by the African Development Bank and the OECD Development Centre with financial support from the European Commission, p. 1.

of Benin, the legislation and the institutions are still the same except the efforts in South Africa and Mauritius for instance.

If we keep our focus on the big problems of health in Benin, from children up to adults; we have to take into account:

– *The function health care for the children* (especially in terms of immunization, height and weight) is depending on the consumption, on the kind of care, on breastfeeding, on the characteristics of the children (age and sex), on the time-space between births, on the medical care during the pregnancy and after birth, on the level of the education and health of the parents, on the marital structure (monogamy, polygamy or mono-parental), on the community net and infrastructure. In this case, these inputs of the function health are very important to identify the linkage to the income, nutrition and education level.

– In the case of the high prevalence of *childhood malaria,* a characteristic of SSA hence of Benin, it is likely that the major efforts underway, such as massive distribution of free nets, efforts strongly supported by the *Malaria Booster* of the World Bank and the Presidential Malaria Initiative – USA, will have a significant positive impact on this disease.

– In terms of *child malnutrition,* much progress has been made in Benin, especially in pondered insufficiency, low birth weight and emaciation. However, several concerns remain: (i) the inequality between departments in terms of malnutrition, where the case of *Atacora* is the most dramatic situation, (ii) this prevalence is still high and increasing for growth retardation, delay probably due to deficiencies in micronutrients and; (iii) the high prevalence of anemia.

– About *infant mortality*, neonatal mortality is the one with the least decrease over the recent period. It is likely that this situation is related to the same stagnation in maternal mortality.

A rate of assisted childbirth (TAA) is normally high and is the main factor to explain the rate of maternal mortality. This TAA is actually at 78 % higher in Benin (according to the Demographic and Health Survey EDS).

At this rate, mortality is still at 400 deaths per 100,000 births. The quality of the care of theses childbirths is as much about the competence and motivation of staff as of the supply of medicines and equipment. This implies to increase the affordability of obstetric care and better distribution of the midwives in the

most concerned areas. In contrast, *HIV/AIDS* now seems under control and it has a relatively low level for the region (1.2 %).

Immunization[549]

Immunization has taken a real importance for mother and child mortality in Benin. The most part of the cost depends on external partner such as the WHO. Some NGOs are also financing immunization campaign according to the regional or the national necessity. In the period from 1990 to 2008 for instance, immunization coverage in Benin focuses measles, DPT, BCG, Polio, and Hepatitis for children. At the beginning, from 1990, Benin has made a huge effort and record one of the best result of the region (SSA) and income group (Low Income Countries) that the country belongs to from 1995-2008. In 1995, the immunization campaign was in comparison to 1990 very weak. In 2000, the reached scores were all over the expectations of the World Bank. By 2008, we can notice that Benin has, out of BCG immunization, to improve seriously all the rest scores. This is the case where government efforts do not positively reach the concerned population.

Infectious Diseases, Tuberculosis, Malaria[550]

Literacy is the way to get information and to apply prophylactic care for children and family. The indicators in this case include: children with fever[551] receiving anti-malarial drugs; use of insecticide treated bed nets; preventive treatment for malaria for pregnant women; prevalence, incidence, and death rate of tuberculosis; tuberculosis case detection rate; and tuberculosis treatment success rate.

In Benin, 17 % of infant mortality is induced by diarrhea, hygiene and quality of sanitation, diseases strongly related to education of the mother, 51 % of women and 33 % of men have never attended school. The situation in Benin is

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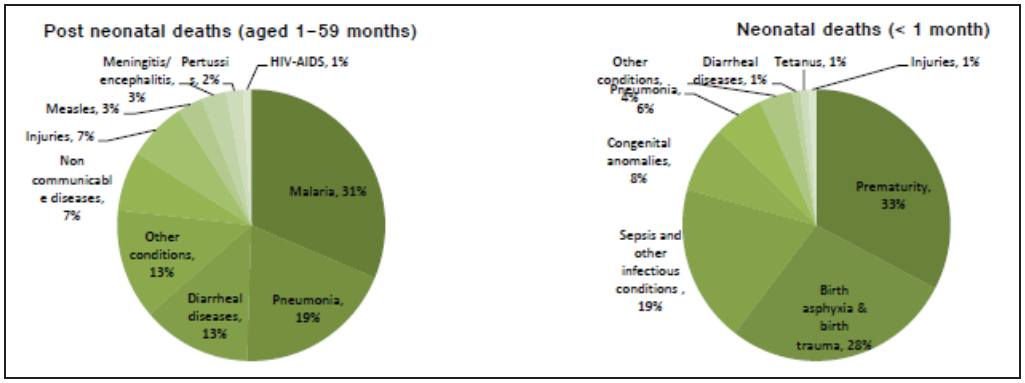
549 See the table mentioned: Immunization in http://ddp-ext.worldbank.org/ext/ddpreports/ViewSharedReport?&CF=1&report_id=10317&request_type=viewadvanced&hf=n.

550 See the table mentioned: Infectious Diseases – Tuberculosis, Malaria in: http://ddp-ext.worldbank.org/ext/ddpreports/ViewSharedReport?&CF=1&report_id=10318&request_type=viewadvanced&hf=n.

551 See World Bank in "Thematic Data: Health, Nutrition and Population Data and Statistics", the World Bank, Washington, DC, 16th November 2016 at 5:20 PM under http://datatopics.worldbank.org/hnp/ThematicData

very worrying. Since 1990, infant mortality[552] in Benin is reduced to about 3.5 % per year, are of 160 deaths per 1,000 births in 2000 down to 125 in 2006. An extrapolation of current trends would increase in 2015 the annual rate of decline of 3.5 % to 6.1 % so then of 61 deaths per 1000 births. This does not tend to the Millennium Development Goals. It is rather a negative prognostic.

Graphic 6: Estimated Distribution of Causes of Neonatal and Under-Five Deaths, 2013[553]



Source: CHERG/WHO/UNICEF for distribution of causes of neonatal and under-five deaths (published in Liu et al, Lancet 2014) quoted by:
http://www.who.int/maternal_child_adolescent/epidemiology/profiles/neonatal_child/ben.pdf.

According to the Department of Maternal, Newborn, Child and Adolescent Health (MCA/WHO), demographic and health information are following[554]:

- *Under-five population (2013) was 1656880
- *Number of births (2013) was 376360
- **Neonatal mortality rate per 1,000 live births (2013) was 26,9
- **Number of neonatal deaths (2013) was 9744
- **Infant mortality rate per 1,000 live births (2013) was 56,2
- **Number of infant deaths (2013) was 20317
- **Under-five mortality rate (2013) was 85,3
- **Number of under-five deaths (2013) was 30602

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552 See "Report no. AAA51-BJ, by the World Bank, Human Development Africa Region and the Ministry of Health in Benin, May 2009".

553 See **Notes:** These are estimated proportions of causes of death obtained from models with input data from available Vital Registration data and population-based studies (for detailed methods and list of references please refer to Liu et al., Lancet 2012). These estimates are not necessarily the same as those from the Member State, which may use alternative methods of estimation of causes of death. All Member Sates have undergone an official country consultation on the CHERG estimation (documents available upon request).

554 * United Nations, Department of Economic and Social Affairs, Population Division. *World Population Prospects: The 2012 Revision*; ** UNICEF/WHO/The World Bank/UN Pop Div. Levels and Trends in Child Mortality. Report 2014.

Through child mortality as a whole, one can observe trends in infant mortality. In rates of child mortality, the differences are greater between area of residence (rural vs. urban) and departments (North/Alibori, South/Coast-Cotonou). Age[555] of the mother at the child birth is also a risk factor for child mortality. Births that occurred before age 20 and after age 40 are less likely to survive than those that occurred at other ages. Infant mortality is still largely associated with malaria, malnutrition and neonatal causes.

The low use of ITNs (Insecticide Treated Nets) appears more related to the insufficient availability of ITNs in households ("Offer effect") as of cultural resistance or lack of willingness of households to use ("Application effect").

When households have a significant number of ITN, they have no major reservations (reservations related to the level of education or level of wealth) to use them. The "supply effect" seems more important than the effect of "demand". Now, over 60 % of households have in their possession a mosquito net (ITN, impregnated or otherwise), which represents real progress compared to 2001, when the proportion was only 40 %. The availability of nets is mainly explained by the attendance of antenatal clinics and the level of household wealth. In practice, one might think that the main constraint on households in their decision to acquire nets is its cost. This would tend to justify the current policy of mass distribution of free nets.

Nutritional Landscape of Benin[556]

The nutritional status[557] of children in Benin is mainly focused on breastfeeding in that the mother is able to breast-feed or having milk in her breasts[558]. Thus almost all newborns (94 %) were breastfed. This rate should not hide that exclusive breastfeeding is 33 %.

We often consider only child nutrition forgetting that of the mother. The status of mothers is comparable to that of their children. Nevertheless, a great improvement from 5 percent point is registered in the state of chronic energy de-

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555 See mortality of children under 5 years by Armelle Ahamidé and Dine Djabar Adéchian in, "Demographic and Health Survey (EDSB-IV) 2011-2012".

556 http://apps.who.int/nutrition/landscape/report.aspx?iso=ben.

557 See: État Nutritionnel et Prévalence de L'Anémie by Armelle Ahamidé, Aubierge Fléron and Soumaila Mariko, in, "Demographic and Health Survey (EDSB-IV) from 2011-2012".

558 Breast milk is sterile and transmits the antibodies of the mother and all the necessary nutrients to children in their first months of life. This prevents breast milk nutritional deficiencies and limits the appearance of diarrhea and other diseases.

ficiency between 2001 (11 %) and 2012 (6 %). Maternal and child malnutrition[559] is a serious public health problem, especially in the most vulnerable groups. The evaluation is based on clinical data, physical or functional, constituting potential indicators of nutritional status. This in turn will allow the development of strategies for the affected groups. Meanwhile for mothers, the health status experiences equally huge improvements. We have seen that the intellectual level of mothers greatly affects the evolution of the household, symmetrically the socio-demographic entourage and socio-economic environment in which she lives.

Taking into account these parameters, it is easy to establish a very close relationship between the levels of fertility, of morbidity and nutritional status[560] of women in Benin. Therefore, the nutritional status of a woman of childbearing age and consequently her health status determines unequivocally maternal mortality, the course up to pregnancy outcome. Ultimately, it determines the child morbidity and mortality.

The difference between urban and rural poor lays on their respective needs and their provisions. Whereas in rural areas the poor need a productive source such as land, water and seeds, the urban poor need a remunerative employment. At one point both require social services. Opposite to rural areas, it is easier for the state in urban areas to subvention food over retails shop or to provide directly to people food entitlements (stamps, bonus, in exchange to job, ration, etc.). It is not that cost intensive as it appears.

The common indicators[561] about nutrition include: prevalence of malnutrition (underweight and stunting), prevalence of wasting, low-birth weight babies, exclusive breastfeeding, vitamin A supplementation, prevalence of overweight, prevalence of undernourishment, and consumption of iodized salt. It is the real landscape of Benin that proves the effort of people to cope to their problems. At many levels, public campaigns have brought positive impacts on nutrition as a whole. The main points are still malnutrition, wasting, lack of vitamin A and

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559 WHO defines malnutrition as, "a condition resulting from the deficiency or excess, relative or absolute, of one or more essential nutrients, this state becomes clinically manifest or is detectable by biochemical analyzes, anthropometric and physiological", (WHO, 1982).

560 See État Nutritionnel et Prévalence de L'Anémie by Armelle Ahamidé, Aubierge Flénon and Soumaila Mariko, in, "Demographic and Health Survey (EDSB-IV) 2011-2012".

561 http://ddp-ext.worldbank.org/ext/ddpreports/ViewSharedReport?&CF=1&REPORT_ID=10313&request_type=viewadvanced&hf=n.

iodized salt, undernourishment. The thinking gorging children through consumption of food containing high carbohydrate and glutamate to make corpulent and/or heavy is very large spread in Africa. This thought is the basis of all forms of malnutrition, because a big and heavy child is synonymous with well-fed. On the other side, children will be feed 3 times per day with the same cheap and easy to collect on fields' vegetable. This leads straight to undernourishment and malnutrition to so then to underweight.

Malnutrition and the impacts on infant mortality and morbidity

Food security is not especially the concern of a tiny part of the population in Benin but of the large one. Urban households spend nearby 40 % to 60 % of their incomes in food (house-made to street food). In common urban life, women have to take the challenge. They have to face the acute trade-off between productive activities (household and external activities) and reproduction (children) in full time. For the children of poor households, it is not the ideal start in life, whereas the high-income household children are widely better off. At this stage of this short approach, the strong determinant for reducing poverty and vulnerability for the household members, especially for children and elderly are the participation and the education for women, their facilitated access to health services, food security and nutritional practices. These complexe determinants will later on condition the capability and the capacity of the children attending school and the same of the household members at work. This is a host of new problems for the women.

Malnutrition is usually measured through two indicators: (i) anthropometric data (underweight, stunting, wasting and low birth weight) and (ii) micronutrient deficiencies (mainly vitamin A, iron, zinc and iodine). Most of these indicators have an impact on infant mortality and morbidity with considerable variations. We can observe that the chronic and acute malnutrition were the strongest impact on infant mortality, as on average, they account for between 19 and 21 % thereof.

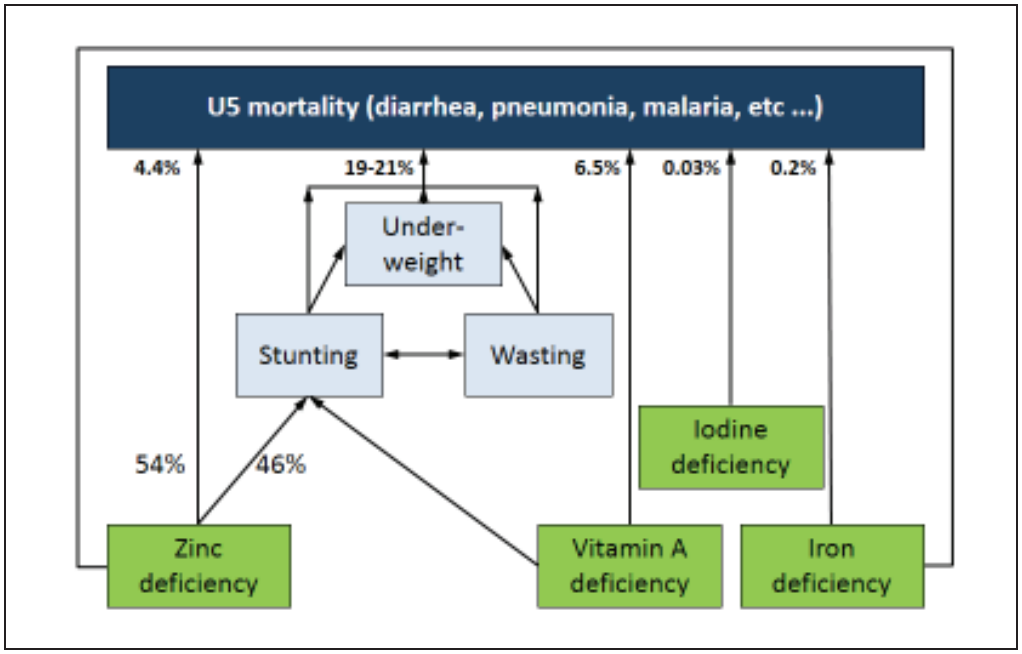
Underweight (weight for age) is used as the main indicator for MDG 1 (Millennium Development Goals 1). This indicator is in fact the result of two other indicators: growth retardation (stunting) and wasting. It became less frequent in Benin but still concerns more than 18 % of children. However, progress remains very uneven across departments and levels of wealth. The level of

household wealth is also a gradient rather important, since the prevalence of underweight ranged from 10 % in the richest quintile to 25 % in the poorest.

Stunting (height for age) is a chronic malnutrition. It reflects the cumulative effects of long-term inadequate food intake and poor health. It has sharply increased since several years and now reaches 31 % to 43 % of children, with the exception of the city of Cotonou (where the prevalence is only 26 %). It is also strongly linked to zinc deficiency. As regards the level of household wealth, the prevalence of stunting is also very similar in the three poorest quintiles (49 to 47 %). Only the wealthiest households (Q5) show a clearly lower prevalence, around 28 %.

In contrast, *wasting* (weight/size) means a recent and acute malnutrition. It tends to stagnate at around 8 %. Taking the WHO[562] criteria, the national average is not regarded as particularly alarming. Moreover, the difference between urban and rural areas is very low (less than 1 %). The gradient of the level of wealth is relatively important because the prevalence of wasting ranged from 10 % in the poorest 5 % among the richest.

Figure 5: Interaction of the Different Sources of Child Mortality under 5 Years



Source: WHO Report 2007.

[562] According to WHO, a low rate is less than 5 % and a high rate is above 15 %.

The chart above is representative of the interaction of the different sources of child mortality under 5 years. Although zinc and vitamin A have their own direct impact on the child health so then on mortality, they are also directly implied in its stunting that in turn is in interaction with wasting and underweight. At the end, this child is not immune enough, strong enough to resist to the consequences of diarrhea, pneumonia or of malaria. In the following passage, the imperative need of micronutrients will be developed.

Micronutrient[563] deficiencies such as vitamins and minerals are among others sources, the cause of certain diseases. For example, vitamin A deficiency can cause night blindness, that of iodine goiter and cretinism, and that of iron causes anemia. These deficiencies can also weak the immune system. In Benin since 2001, all children between 6-59 months benefit from vitamin A supplementation during immunization campaigns.

Socio-demographic and socio-economic characteristics show that the consumption of foods rich in vitamin A and iron increases with the age of the child and in proportion with the level of education of the mother. Iodine deficiency has serious consequences on the health of the patient. In Germany, for example, parents are convinced to give their children up to 2 years (24 months) compounds tablets of iodine and vitamin D. The reasons are very simple. Food does not provide enough of those micronutrients. The effects of iodine deficiency have a direct impact on body growth, on mental development, are source of goiter by the adults and are the origin of spontaneous abortion, infertility, stillbirth and infant mortality.

Over three quarters of Beninese children still suffer from anemia (iron deficiency). Between 2001 and 2006, the prevalence of anemia declined marginally from 82 % to 78 %. Again, with the exception of the Department of the Littoral[564] (60 %), the deficiency is prevalent in all departments, with a maximum of 90 % in Alibori. An anemia rate[565] greater than 40 % is considered as a serious public health problem. The first four quintiles recorded a fairly similar prevalence (ranging from 83 to 75 %).

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563 See État Nutritionnel et Prévalence de L'Anémie by A. Ahamidé, A. Flénon and S. Mariko, in, "Demographic and Health Survey (EDSB-IV) 2011-2012", p. 207.

564 Cotonou.

565 According to Hotz (2004).

In the report, deficiencies in zinc and iodine are not explicit for Benin. We know, however, that zinc deficiency was strongly correlated with growth retardation (43 % in Benin) and anemia (78 %). Deficiencies of vitamin A appear to be relatively strong. The only data available for children date back to 1999 (WHO 2007). They indicate the prevalence of vitamin A deficiency around 82 % in the North (Borgou and Atacora) and 64 % in the South (Atlantic, Mono and Ouémé. The first rate is clearly higher than the regional average (67 %).

Anemia[566] is measured by the hemoglobin in g/dl. This level should preferably be higher than or at least equal to 8.0 g/dl. Everything below 8.0 g/dl is proxy for anemia–related to malaria (hemoglobin explosion due to plasmodium falciparum and/or the result of a dietary deficiency of iron, vitamin B12 or other nutrients). In Benin, the malaria wreaks havoc and especially in the most vulnerable groups (children and pregnant women) to the extent that 78 % in 2006, in 2012 58 % of children 6-59 months basically have hemoglobin rate less than 8.0 g/dl so they are anemic[567]. By entering into details, we note that 10 % of children 6-8 months and 11 % 9-23 months are anemic. Urban/rural ratio is equivalent to the ratio oddly boy and girl, which is 8 % against 6 % respectively.

Low Birth Weight

Over 12 % of newborns suffer from a low weight, less than 2.500 gr. As for anemia, all departments of Benin are affected by low birth weight, the prevalence varying by only 11 % to 17 %. The Alibori is once again the department most affected. This situation is connected to the mother's health during her pregnancy. Indeed, certain preventive measures are taken to support mothers and their pregnancies. 75 % of women on average have been dewormed periodically during their pregnancies. This rate varies from 69-94 % depending on the socio-demographic, socio-economic environment and intellectual level of the mother. The anemia[568] is spent on average from 61 % in 2006 to 41 % in 2012 with a dominance of mild anemia (32 %). After birth, the feeding of in-

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566 The information on the anemia of children under five are detailed in table 10.10 p. 188 in, "Demographic and Health Survey (EDSB-IV) from 2011 to 2012". However, according to DeMaeyer, 1989 and Yip 1994; it is recognized that the anemia can be caused by parasitic infections, hemorrhages, congenital disorders or chronic illnesses, it is usually due to a dietary deficiency, including at the base, a lack of iron.

567 26 % slightly, 29 % moderately and 3 % with severe anemia.

568 See DeMaeyer, 1989; Yip, 1994.

fants and young children remains relatively adequate. Consumption of micronutrients is somehow less alarming, except for iron and zinc. Malnutrition[569] is linked to three types of cases strongly intertwined. It is the result of two interrelated immediate causes: (i) the nature of food consumed (quantity and quality) and (ii) health status. Secondly, these two causes are themselves heavily influenced by three underlying causes: (i) access to food (a cause that is quite rare and only occurs in situations of food shortage), (ii) feeding practices, including breastfeeding and consumption of foods rich in micronutrients and (iii) access to safe water, sanitation and health services.

Finally, these different underlying causes are related to dynamic social, economic, religious and political work in each country (or region). These dynamics are called root causes. In terms of analysis, it is of course very difficult to rigorously explore the root causes, for example, the same situation of malnutrition in two regions of one country may have very different causes, mainly because of economic conditions or cultural traits of each region. The underlying causes are by definition more operational and can therefore guide us in our effort to explain the nutritional status of Beninese children. However, there is a common use of a metric system to calculate the dimension of children at birth until 5 to 10 years: the Index of Quételet.

Table 23: Prevalence of Adult Overweight and Obesity, 2008 (%)

	Overweight (BMI ≥25)	Obesity (BMI ≥30)
Female	32	10
Male	20	4
Both	26	7

Source: WHO 2014. Note: BMI = body mass index.

The Index of Quételet more known under the abbreviation BMI (Body Mass Index) establishes the relationship[570] "weight (kg) by the square of height (in meters)." It is a relationship which in turn allows the identification of important risk factors for women's pregnancy. The BMI equal to a minimum of 18.5 is normal; below 18.5 is synonymous with chronic energy deficiency, greater than 25 indicates overweight. The mean value for 67 % of women in Benin is

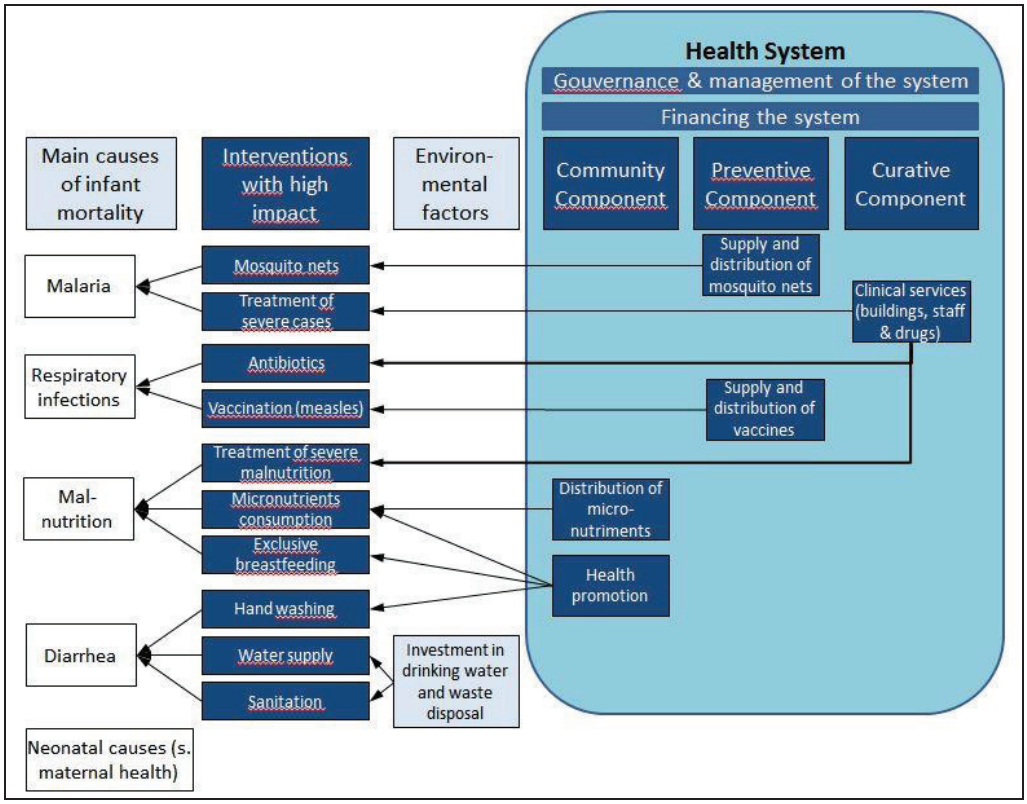
[569] See Pelletier 2002.

[570] BMI is calculated by dividing weight in kilograms by the square of height in meters (kg/m^2).

24. Despite these good results, the fact remains that 4 % of women aged 15-19 are below 18.5 and 27 % greater than 25. Both ends have serious health consequences, the conduct and outcome of pregnancy.

In the chart below, the inter-relation between the health system and the sources of children mortality (malaria, respiratory infects, malnutrition and diarrhea) are described.

Figure 6: Inter-Relation between the Health System and the Sources of Children Mortality



Source: WHO and UNICEF collaboration report on Benin.

Indeed, in addition to hand hygiene and drinking water system, the situation has deteriorated sharply in the elimination of human waste (Benin records one of the weakest results in Africa, with Chad, Burkina Faso and Niger). We should have a deep look at the households.

About the characteristics of households[571], 78 % of households in general have drunk the water from improved sources. This corresponds to 86 % of urban households and 72 % in rural areas. Regarding the types of toilets used by

[571] See "Enquête Démographique et de Santé (EDSB-IV) 2011-2012".

households, the results are more deplorable as shown in On average 15 %[572] of households have improved and have private[573] toilet. This is equivalent to a proportion of 28 % of households in urban areas against 5 % in rural areas. 74 % of households throw their garbage out[574] of the house. Further, only 15 % of households have improved and not shared toilets, considered adequate. This proportion is more than five times higher in urban than in rural areas (28 % against 5 %).

Benin has one of the worst score in the region (SSA) and income group (Low Income Countries) that the country belongs to from 1995-2008 SSA. Except malaria (drugs and bed nets) and tuberculosis treatment success, the rest is at the bottom. The country needs a radical cure and campaign.

3 The Special Cases on Health

Gender discrimination, decision-making as also the status of women, user problem of health system for instance have an important impact on health. They are the plethora of source that can seriously bias all adequate program and implementation.

We have to be careful in this paragraph because the interaction between the sources and their link with education and nutrition; could make it hard to identify the predominant factors such as how social spending on health could have some positive impacts on poor people in special cases.

3.1 Gender Discrimination and its Impacts

Concerning the gender distribution of poverty in Benin, rural poverty is more prevalent in male-headed households than female-headed households. Thus, in 2006, the incidence[575] of non-monetary poverty was 42.3 % in male-headed households compared with 34.6 % for female-headed households. Therefore, male-headed households are 1.3 times poorer than female-headed households.

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572 See "Enquête Démographique et de Santé (EDSB-IV) 2011-2012", table 2.2., p. 40.

573 Not used by the community and other external to the family.

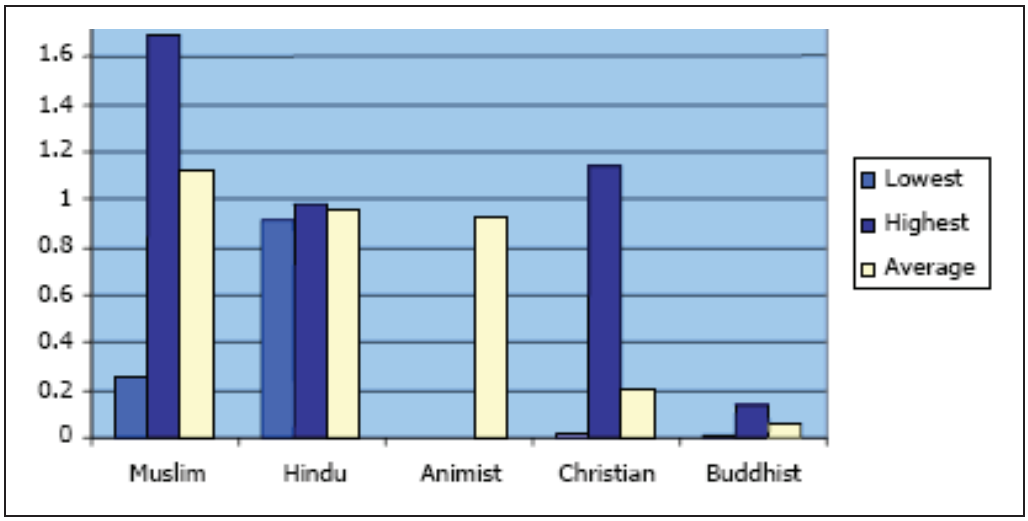
574 Throw outside/in the nature.

575 See SCRP, 2007.

Regarding monetary[576] poverty, households headed by men are 1.1 times poorer than those headed by females. There is a positive correlation between the levels of poverty and the size of the household. Indeed, according to SCRP 2007, in 2006, the incidence of nonmonetary poverty was 1.3 times higher in households with more than six individuals than in those with less than three individuals.

Girls and boys in SSA and in South Asia have different status linked to the relative value placed on each according to the region. The main point of consideration between the regions is who is paying the bridegrooms for marriage. It is very important for the nutritional and health care. The paying group pays less attention to the person than the receiving group. In Africa, the paying group is that of the man and in South Asia that of the women.

Graphic 7: Levels of Discrimination against Women by Religious Affiliation



Source: "Commercial Vegetable and Polyculture Fish Production in Bangladesh: Their Impacts on Income, Household Resource Allocation, and Nutrition" by Bangladesh Institute for Development Studies, and the Institute of Nutrition and Food Science, final report, IFPRI, Washington, D.C., 1998.

For instance, in India and in Popular China, mortality rates are higher for girls than boys subcount, and resulting in a surplus of males in the adult population[577]. In intra-household gender discrimination, adult women (mother) receive equal and sometime less than their daily requirements in micronutrients,

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[576] See SCRP, 2007.

[577] See L. Haddad, C. Peña, C. Nishida, A. Quisumbing, and A. Slack in, "Food Security and Nutrition Implications of Intrahousehold Bias: A Review of Literature" by FCND Discussion Paper 19, IFPRI, Washington, D.C., 1996.

iron and animal protein compared to their preschool boy in South Asia. It is not so in Benin although it is a patriarchal society. There is some discrimination in fact but lower than this level supported by women by Muslim, Chinese and other culture such as that of the Taliban's.

3.2 Women Decision-Making and Productivity[578]

In Benin, there are some positive results that must be mentioned. In households, it is fashionable to specify the economic relations and thus of force[579]. In Benin[580] regardless of religion and age, the majority of married women and men work and they are paid in cash.

The paid represent respectively 72 % and 71 %. Of these, 70 % of women against virtually all men unilaterally decide alone the use of their own salary; whereas 18 % of women deal with their spouse. To this, we must still add other real estate. 40 % of men and 20 % of women have at least one house and/or land. Finally, regarding the level of economic well-being, we note that it is among children from households in the highest quintile of economic well-being that the proportion of those who have worked is lower (14 %).

Generally, social structures and cultural imperatives have led to the so-called gender discrimination in the most of the SSA countries. In the issue of nutrition, a somewhat paradoxical concept, a kind of dichotomy lays down.

Women are those who insure the nutrition of the family but at the same time, they have almost no access to the inputs that will increase the quality and yield of food production. The list of the inputs could be resumed to: health, education, labour and non-household labour, credit, seed, traction equipments, fertilizers, know how/technologies and experience. As revelled in Burkina Faso as

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578 See A. Quisumbing in, "Male-Female Differences in Agricultural Productivity" by *World Development Food Policy,* 24 (1996), pp. 1579-1595; and C. Udry, J. Hoddinott, H. Alderman, and L. Haddad in, "Gender Differentials in Farm Productivity: Implications for Household Efficiency and Agricultural Policy", by *World Development Food Policy,* 20 (1995), pp. 407-423.

579 It's pretty amazing but true. At about the same percentage of 16 % of women and 15 % men find that reasonable that a man beat his wife for reasons as trivial as senseless such as: burning food, arguing with her husband/partner out without informing the husband/partner neglecting children, refusing to have sex with her husband/partner Plus. The more man and woman are aged the more their percentage is high to accept this mentality. The more the women are young and educated, the less they accept in percentage this mentality. The socio-Demographic environment also has a great influence on the percentage. For example, rural is higher than urban).

580 See "Rapports de Genre" by Seriki Leontine and Gisele Houessou Assaba in "Enquête Démographique et de Santé (EDSB-IV).

in the North West of Benin, these handicaps have led to a <20 % lower yields than men controlled plots. As soon as one transfers the same inputs from men to women, the productivity of women rose up to >10 %, and in Kenya women boost the yields to 24 % with a year of primary education. The same results could be obtained in Benin. Nevertheless, by an average provision of these inputs as by a man, woman has for farm non-tradable (local products for nutrition) an average of 22 % yields better than a man. In developing countries where the information and literacy rate is low, it is hard to achieve such a goal without field research, without the collection of quantitative and qualitative well-founded data[581] and the synergetic participation of the national institutions as of NGOs for the design of the trial interventions and recommendation for action. However, implementation policies must be tailored to meet the specific needs and constraints of women. Furthermore, men must be engaged in this process over the provision of opportunity to inform them about the aim of the policies and the potential outputs for all.

About property rights, in a patriarchal system such as in West Africa as in a matriarchal system such as in Congo Basin, a person's gender is a condition of property rights[582] and resource management and implies thereby gender discrimination.

An overall long-term access and/or property are a guaranty for a genuine preservation and yields. In Ghana cocoa region for instance, gift transfers have become increasingly important as a means of acquiring private rights to land[583]. Men must plant 20 to 25 percent of a parcel with cocoa trees but women have to plant 40-50 percent of the land before acquiring it as a gift[584]. Women with property rights are more productive than men and they managed the resources better than men.

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581 Quantitative and qualitative data collection methods are integrated in the design and impacts measurements. The quantitative one helps to determine the problems and patterns food availability (production and consumption) in combination with epidemiological, dietary, clinical and biochemical techniques. The qualitative one help are basic information in the design of implementation policies.

582 See chapter on Institutions.

583 See IFPRI in „Women, The key to food security: Looking into the household" by International Food Policy Research Institute (IFPRI), WASHINGTON DC, 16th November 2016 at 5:40 PM under http://pdf.usaid.gov/pdf_docs/PNACH778.pdf

584 See A. Quisumbing, E. Payongayong, J. Aidoo, and K. Otsuka in, "Women's Land Rights in the Transition to Individualized Ownership: Implications for the Management of Tree Resources in Western Ghana" by FCND Discussion Paper 58, IFPRI, Washington, D.C., 1999.

3.3 Education and Status of Women with Improvement

The proportion of literate men and women[585] 15-49 years under 5 quintiles of well-being is not surprising. Indeed, the results show that the proportion of literate increase from bottom to top.

Among women, the percentage increases from the lowest quintile of 20 % with 9 % literate up to 70 % literate in the quintile highest of 20 %. Among men, the results were 30 % at the lowest up to 90 % at the highest quintile. Various media consumption, both for women and for men, is positively influenced with a generous upward trend with the level of education. With similar consumption rates between men and women, it passes from ≤ 1 % among men and women with no education up to 36-37 % among those with secondary 2nd cycle education or more. With their overall lowest assets and access facilities, women could play a considerable role in the allocation, and decision-making about the household expenditures. Their primary concern is the childcare with a significant reduces of illness among girls follow by education and clothing.

In a patriarchal system, the outcomes of the household are absolutely different between women and men, and depend on who controls the assets in the household. Women systematically allocate an increasing share[586] to childcare, health and education rather than men.

The analysis of the status and the education of women have led to significant results concerning malnutrition, health care and education. It becomes obvious that the rate of child malnutrition, the preferential treatment with regard to health care depend only on the level of women (gender) status within the household. Using the data of sound 40 countries, "the evidence shows that increases in women's education accounted for 43 percent of the total reduction in child malnutrition, by far the largest contribution.

Improvements in women's status accounted for another 12 %. Improvements in food availability came in a distant second to women's education, contributing

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585 See graphic 3.1. in EDSB-IV 2011-12, p. 67.

586 See A. Quisumbing and J. Maluccio in, "Intrahousehold Allocation and Gender Relations: New Empirical Evidence from Four Developing Countries" by FCND Discussion Paper 84, IFPRI, Washington, D.C., 2000.

26 percent to the rate of reduction"[587]. It is then obvious that the provision of care by mothers with a better maternal care experiences, little formal education in feeding practices and the facilitated access to health services will bring a Body-Mass-Index for Age measurements[588] of children from poorer families up to the level of wealthiest or more educated women. Information regarding women, family planning devices seems very inefficient in Benin.

Considering the level of population exposure[589] to messages of mass media on family planning, 48 % of women have never been exposed to family planning message during the last 3 months. The gradient by level of education and wealth is relatively strong.

For example, in terms of wealth, 66 % of the poorest women have had no exposure to this type of message, against 26 % of the richest. More worryingly, among women nonusers of contraceptives, more than 90 % have neither received a visit from a health worker, nor discuss family planning PF during a visit to the clinic. Among those who went to a health center, less than a quarter of them have received information about FP. It is interesting to note that these percentages are nearly identical regardless of educational level or wealth of women. This suggests a major deficiency of the supply side of FP services.

The reforms and programmes should focus the changes that will generate an environment for the rise of women full potential. The fields in which these improvements will take place are the legal, social, labour, culture, institutions and consciousness of policy-makers.

A genuine integrated education, health and nutrition services for poor families and monitored by women, as gatekeepers can be the premise for a significant success of food security by increasing school attendance for girls. This strategy will improve women's socio-economic status. Nevertheless, any project is that direction should contain the needs of both women and men, what in turn increases the sustainability of the project in a "win-win business" for both genders' part. Gender (in)equality is a rising challenge and government task in

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587 See L. Smith and L. Haddad in, "*Explaining Child Malnutrition in Developing Countries: A Cross*-Source", Research Report 111, IFPRI, Washington, D.C., 2000.

588 See M. Ruel, C. Levin, M. Armar-Klemesu, D. Maxwell, and S. Morris in, "Good Care Practices Can Mitigate the Negative Effects of Poverty and Low Maternal Schooling on Children's Nutritional Status: Evidence from Accra" by FCND Discussion Paper 62, IFPRI, Washington, D.C., 1999.

589 See EDS 2006.

Developing Countries due to a fundamental change that occur in the family institutions all over the countries.

The changes concern the laws, norms, tradition and behaviours that discriminate women to participate in the labour force, in their education, nutrition, health, earnings, income and common and basic rights such as political representation. Although women have usually a powerful potential rather than men to booster productivity, growth, economic development and poverty reduction, empowering women and giving compensation for men "lost interests" will raise the welfare of each household. By no mean, gender equality can be implemented without the participation of men, especially in areas/locality where the tradition largely determines behaviour. All efforts will end in a violent resistance against the legitimacy of the efforts paradoxically supported by a group of women. Public sequenced and increasing campaigns over all available medium and entertainment channel are needed to bring change in the behaviours and mentalities. Promoting changes in this context is a sensible affair. It is very difficult to design an institutional framework or a code of the family, because it must cope to the view that central government is trying to interfere in the local cultural liberty or the Developed Countries are still imposing cultural imperialism. In most developing countries, especially poor ones, cultural practices, traditions, customs and social norms hold the keys to understanding the roots of gender discrimination[590]. The following figure[591] for instance illustrates the discrimination against women according to religious affiliation.

We have to carefully pay attention to cultural and religious discrimination in the following figure, because in the case of Islam for instance, "certain surates of Koran have often been tailored to fit pre-existing traditions or to suit power relations between men and women"[592].

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590 See "Culture, Gender and Growth" by Johannes Jütting and Christian Morrisson1 in OECD Policy Insights, no. 15, October 2005. (This Policy Insight has benefited from excellent research assistance by Silke Friedrich and Jennifer Davies.), p. 1.

591 See ibid., p. 2.

592 See ibid., p. 2.

3.4 User Problems in the System of Care

In Benin, access[593] to health care is not widespread. Indeed, many factors prevent women and men from receiving advice and medical treatment when they need it. Especially women aged 15-49 say they already meet ACCES problems to health care when they are sick themselves. These problems are socio-demographic and economic characteristics[594]. Contrary to expectations, the average rates are very high:

- 69 % of women had at least one of the above problems;
- 62 % have faced financial availability and/or economic;
- 44 % fear the distance;
- 34 % are subject to permission to go seek treatment;
- 27 % are afraid to go alone.

Commonly, if the poor are sick more often, this is due to nutrition and environment. The type of care system used by the population depends primarily on the environment (urban/rural) and region of residence. To understand the care pathway[595] of Benin's population, about 9554 people surveyed, approximately 20 % reported having been ill at least once during the past 12 months. This rate was significantly higher (25 %) among the poorest[596]. In contrast, the type of service chosen at first is mainly related to area of residence. Indeed, the practice of using a system of care is virtually identical in rural areas, even the person is poor or not. In this environment, modern self-medication is the treatment of first choice. The situation is very different in urban areas, where resources are highly unequal between rich and poor. In town, the poor were first self-medicate, while those better off are going to the Health Centre.

About Child Health[597], it should be noted that 48 % of children 1-2 years are fully[598] vaccinated. Extremes are in the departments of the Collines with 66 %

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593 See table 8.12, in "Enquête Démographique et de Santé (EDSB-IV) 2011-2012".

594 Socio-demographic and economic characteristics of women aged 15-49 include: Having permission to seek treatment, Having the money for treatment, Distance to the health service, do not want to go alone, at least one of the problems for access to health care.

595 In the study of Ouendo, the poor have been identified by community leaders. They do not necessarily correspond to the poorest quintile defined by the DHS (EDS).

596 In the study, four types of services were possible: (i) go to the Health Centre, (ii) take modern medicines without consultation, (iii) take traditional medicines with or without visiting the tradi-thérapeuthes, or (iv) do nothing.

597 See Santé de L'Enfant by *Mêmounath Bissiriou Zounon and Jules Daga* in "Enquête Démographique et de Santé (EDSB-IV) 2011-2012".

and 26 % in Alibori. At equal share, febrile children under five receiving treatment ordered by a health worker/employee or a parent gives them during malarial fever. By cons, for any reason, 50 % of children under five with diarrhea continued to be normally fed with the supporting treatment with ORT and/or liquid preconditioned ORS sachets (ORT: oral rehydration treatment; ORS: orally rehydration salts). Until then, in Benin, acute respiratory infections (ARI) in case of pneumonia is a major cause of infant death and is equally the source of high consultation rates of hospitalization for children aged 0 to 5 years. The fact remains that only a third of the IRA sick children received adequate treatment. For other diseases like bacterial, viral fever or diarrhea for children under five, treatments are made according to the residential, sociodemographic, socioeconomic characteristics and education level in the household; especially about the mother. However, on average 20 % of children received no treatment for reasons of residence and socioeconomic. In Benin, malaria[599] (90 % of the cases are *plasmodium falciparum*) is a major public health problem. This disease is and remains a scourge of all time against the most vulnerable populations, such as children under five years and pregnant women. This evil is now fought with force and means in Benin because it is the leading cause of morbidity and mortality in the country. For this purpose, the LLINs is owned by 75 % of households, 64 % of ITNs. The difference is more significant for children under 5 and pregnant women, because 66 % and 71 % benefit from LLINs against 20 % of ITNs. Two-thirds of pregnant women take preventive anti-malarial treatments.

4 Government Activities in the Promotion of Health Care

Improving health status[600], especially for the poor, is one of eight strategic directions of the government. This effort relates specifically to some themes such

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598 Fully immunized means according to WHO recommendations, that the child received vaccine: anti tuberculosis BCG, 3 doses against polio, 1 dose against measles, and three doses of DPT against diphtheria, tetanus and pertussis before the age of 12 months.

599 See PALUDISME by Achille Massougbodji, Yves Eric Denon, and Bruno Aholoukpe in "Enquête Démographique et de Santé (EDSB-IV) 2011-2012".

600 See World Bank in „Benin - Health, Nutrition and Population : Health and Poverty Analytical Report" by Open Knowledge Repository, Washington, DC, 16th November 2016 at 5:45 PM under https://openknowledge.worldbank.org/handle/10986/3207

as management of the existing infrastructure, governance[601], private sector involvement and harmonization efforts with external partners.

About population[602]'s health and nutrition, this study is primarily an update on the situation.

4.1 Health System in Benin

In terms of institutional governance, Benin is relatively late engaged in the decentralization of its health system. The central levels (Ministry of Health MS) and the districts (Departmental Directorate of Health DDS) control and still use the most resources, although deconcentration at the advantage of Health Zones (ZS) is growing every year. It is clear that this development would be accelerated by a better representation of local committees' management of health institutions (COGECS). Administrative decentralization should also facilitate things.

Another problem, less conventional, facing the MS is that of insufficient coordination between the activities of national offices and with the deconcentrated levels. In terms of control, despite some shortcomings, the health information system is particularly efficient. However, the country still suffers from a lack of bottom-up planning and coordination rather limited with external partners (technical and financial partners PTF). The level of use of public care services remains low and inadequate. The rate of use of outpatient services is slowly and irregularly growing, and in 2006 reached only 44 %. The rates are better in regard to newborns (83 %) and pregnant women (91 %).

In contrast, hospitalization rates, already low, has decreased steadily since 2001. These worrying trends are notably linked to slow progress in quality of care. The low rate of hospitalization is sufficient to explain the limited technical efficiency of the hospital system, which does not exceed 62 %, and means in turn that 38 % of resources (staff and beds) are "wasted" or lost.

The poor performance of public health care services is due to several factors:

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[601] Governance is understood here in the following sense. Governance is the consistency of the incentives of various actors to achieve the objectives assigned to them. For incentives, we include both objectives, the powers (to reach those goals) and assessments or tests performed. This concept of governance applies to both institutions and individuals.

[602] http://www-wds.worldbank.org/external/default/main?pagePK=64193027&piPK=64187937&theSitePK=523679&menuPK=64187510&searchMenuPK=64187283&theSitePK=523679&entityID=000020953_20101105141100&searchMenuPK=64187283&theSitePK=523679.

- Consistency of the health pyramid is limited,
- Institutions also suffer from poor geographical distribution of staff (Human Resource),
- The high prices of drugs (at by the institutions),
- In terms of physical structures (i.e. buildings), over 90 % of the population lives within 5 km around a health center.

Most important, despite a strong commitment of the Ministry on contracting, management of care services remains rather vague in terms of objectives. The level of financial and human resource management by the institutions is still poor and without motivation for employees. A reorganization of public care sector is imperative for better management and operability of institutions. Given demographic pressure, lack in quantity and quality of health personal is underway in Benin. Indeed, the production capacities of medical schools may help to fill this gap quickly enough. The more fundamental problem is that of the staff.

Benin suffers from a very unequal geographical (North to South) distribution of its health workers. No device or reform has yet been scheduled. Add to this, is the worrying problem of the performance of public sector human resources which is due to the absence of reform of the civil service and the slow pace of budgetary deconcentration. Regarding drugs, we can consider that the supply works reasonably well. The rate of availability of essential drugs at health facility level is slightly above 80 %. The breaks seem more related to weaknesses in "*inventory management*" rather than to the system of procurement and distribution of the Central Supply of Drugs Essentials CAME.

The main obstacle to access to medicines for all, in fact lies in the very high prices, which weigh heavily on households (76 % of national expenditure on medicines is directly supported by households). This situation will inevitably increase the illegal market (mostly the copies made in China), a market that is very timidly fought by the government.

For vaccines, Benin is a model country in the sub-region, with coverage rates close to 90 %[603] and this since many years. Conversely, the sub-sector of the blood remains very under-organized. The development of a national policy is a

[603] See WHO Report 2009 and World Bank Report no. AAA51-BJ, Human Development Africa Region and the Ministry of Health in Benin, May 2009.

necessary first step in strengthening this activity. The weight of the private sector[604], both commercial and religious, is growing in Benin, especially in the ambulatory sector; it serves more than 60 % of consultations. The religious sector (mainly hospitals) is relatively uniform and plays an essential role in the North. It is true that the existing legal mechanism to regulate the private sector is also poor.

This can be partly explained by the fact that many health officials illegally practicing a private activity, which does not encourage real control of these illegal activities. The financing of the health system by the Ministry of Health (MS) today represents 9 % of the state budget, which shows a sharp decline compared to the amounts of the 90s, but still significant. The expenses of MS seem to prioritize the most effective interventions and pro-poor policy.

However, two problems are of particular concern: (i) the low rate of execution of the entire government but more specifically, the investments of the Ministry of Health and (ii) the diversion of Indigent Health Fund for the benefit of the richest.

The system is financed by households up to 52 % of health spending and remains essential. It should be noted that the risk-sharing mechanisms are virtually nonexistent. Despite a long tradition of mutual community development, they now cover only 1 % of the population of Benin. More than 2 % of households in Benin are annually faced with "catastrophic" health costs (over 40 % of their income) and switch so into poverty.

Finally, external financing (Technical and Financial Partners PTFs) is fairly low, 16 % of health spending and it is relatively volatile.

4.2 The Performance of Care Services in Benin

Regardless of place of residence, educational level and socioeconomic status of the household, 98 % of women and 97 % of men 15-49 years have no medical coverage605 and no medical insurance606 in Benin.

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604 Ibid.

605 See "Enquête Démographique et de Santé (EDSB-IV) 2011-2012".

606 See table 3.8 Medical Insurance: Percentage of women and men aged 15-49 by type of health insurance, according to background characteristics, EDSB-IV Benin 2011-2012 p. 77.

We can analyze the performance of a system of care through four (4) dimensions: (i) its effectiveness (that is its ability to improve health indicators), (ii) its efficiency (i.e. the relationship between resources used and results achieved), (iii) the equity (i.e. it is directed primarily to those who need it at most, namely the poorest, who are generally those whose health indicators are most degraded) and (iv) the financial protection that the system provides (i.e. regardless of income level of patients, the financing of the healthcare system should be designed to reduce the final costs incurred by these patients). It should be noted that, given the paucity of data on the private sector in Benin, only the public sector can be analyzed.

The contribution of the healthcare system health, indicators is generally low and particularly difficult to measure. Moreover, it is particularly difficult to measure the impacts of these indicators. To measure the effectiveness of the care system, we can retain the two proxies: (i) the use level of the system by the population (i.e. the attendance rate and the rate of hospitalization) and (ii) the quality level (technical and organizational) of provided care. Unfortunately, there is no benchmark for these proxies. It can only be compared with those achieved by other countries, and the observation of their evolution over time.

4.2.1 The Use Level of Public Health Care System

Ambulatory activity

For the general population, the attendance rate of curative consultations i.e. health/public health remains low and highly variable. For all ages, the number of new consultants in relation to the population (attendance[607]) was 44 % in 2006. There was a sudden collapse in 2002, followed by a slow and uneven recovery. Despite the apparent progress, the current rate (44 %) is still very low, if one takes into account the benchmark of the WHO, which should normally expect a rate of 100 % (i.e. an average of per capita of one annual contact with the health system). The attendance rate for children under one year is higher and increase. Differences between departments are considerable. The rates vary from of 51 (Couffo) to 132 (Borgou), and by no mean, it is not pos-

[607] These are the new consultants for curative consultations in the basic health units (thus excluding those patients already in care) for all ages (including in particular children and pregnant women).

sible to determine if this variation is related to weak health infrastructures, income levels or other factors.

It is reported[608] that women have an increasing use of post-natal services, although uptake remained low, but from earlier 37 %, they hardly reach 50 % today (2010). "The perinatal death effect appeared more dramatic in Benin because of size and consistency of the effects across several outcomes"[609].

The attendance rate by children aged between 12 and 60 months has stagnated at a low level for several years. This rate is in fact about 58 % over the last 6 years, but no progress appears clearly. Differences between departments are small. Benin records the lowest rate of care seeking for acute respiratory infections (35 %), for diarrhea 20 % but Diarrhea treatment in % of children <5 receiving oral rehydration and continued feeding was at 32,5 in 2014. In total, it appears that the care system to treat children is uncommon and uneven. The rate of prenatal care is defined as the ratio between new consultants and expected pregnancies[610]. Behind the national rate rather satisfactory, significant disparities exist among departments (61 % to 99 % from Atlantic to Alibori), by level of education (84 % for women without education to 99 % for those with at least secondary level) or level of wealth (74 % for the poorest quintile to 98 % for the richest). The highest disparity concerns the rural areas, where pregnant women rarely consult health care unit with the required frequency.

Pregnant women receiving prenatal care[611] was at 82,4 % in 2014 but the rate[612] of prenatal consultation was 88.0 in 2006. While the vast majority of women were, in fact at least once, using the service of health during pregnancy, a significant number does not make all recommended 4 sessions. Moreover, only a third of them make the first consultation in the first 4 months of pregnancy. This is especially true for women living in rural areas. One reason is cultural.

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608 See "Effects of severe obstetric complications on women's health and infant mortality in Benin" by Trop Med Int Health. 2010 Jun; 15(6): 733-742. Published online 2010 Apr 8. doi: 10.1111/j.1365-3156.2010.02534.x, PMCID: PMC3492915 under http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3492915/.

609 Ibid.

610 According to the WHO definition, used for Benin, the number of expected pregnancies is equal to the number of expected births multiplied by 1.15.

611 See World Bank Statistic on Benin under http://databank.worldbank.org/data/reports.aspx?source=health-nutrition-and-population-statistics.

612 See EDS Survey, year 2005.

In the northern departments, the first months of pregnancy is considered strictly as confidential. However, the problem should be relativized. According to SNIGS, the utilization rate for post-natal remains low around 41 % for several years. Data from the EDS 2006 are significantly more optimistic 68 %. The latter rate is probably closer to reality, because the use of postnatal care appears largely related to the rate of childbirth in institutions. With a rate of 68 %, coverage remains inadequate for postnatal care and helps explain the neonatal mortality. In these cases, the gradients associated with poverty and region of residence are important. While on average 32 % of women who gave birth did not receive postnatal care, this rate reached 50 % for the poorest quintile and over 46 % in the two northern regions. According to the Demographic and Health Survey[613] 2011-2012, since 2001, there has not been a significant change in antenatal care; however, the proportion of women receiving antenatal care was a slight improvement from 87 % in 2001 to 88 % in 2006 and 86 % in 2011-2012. This continued in the delivery where the proportion of women whose birth took place in a health facility increased from 76 % in 2001 to 78 % in 2006 and 87 % in 2011-2012.The results are better for the proportion of women whose birth was attended by a health care provider trained. The percentage increased from 74 % in 2006 to 81 % in 2011-2012. Overall, 51 % of women received postnatal care within 48 hours of birth, as recommended. In contrast, in 6 % of cases, the examination took place quite late that is to say between 3 and 41 days.

Hospital activity

The hospitalization rate has generally fallen since 2001, although very crudely, the effectiveness can be measured. This effectiveness of a hospital system can be measured by observing the evolution of day reported to that of the population. Benin has gone from already weak[614] rate of 2.454 visits per 100,000 populations in 2001 to 1.644 in 2006. Even without correcting the hospital activity relative to population growth, there is an absolute reduction of hospitality days. This trend exists at all levels of the hospital pyramid (national, depart-

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613 See paragraph, “santé de la reproduction” conducted by M. B. Zounon, A. Guèdèmé and J. houeha, october 2013

614 Within the OECD (the only organization to regularly monitor this indicator), the rate of hospitalization ranged from 8.450 (Turkey) and 27.100 (France).

mental and Zones/local), but is particularly pronounced for zone hospitals. The issue concerns the causes of this trend. Maintaining or even the slight increase in ambulatory activity may suggest a movement of outsourcing of medical expenses. Another explanation could be the lengthening of Average Length of Days (Durée Moyenne de Séjour). At the same capacity, if the DMS increased, we must reduce the amount of stays. But the chart below shows that DMS is decreased or remained stable.

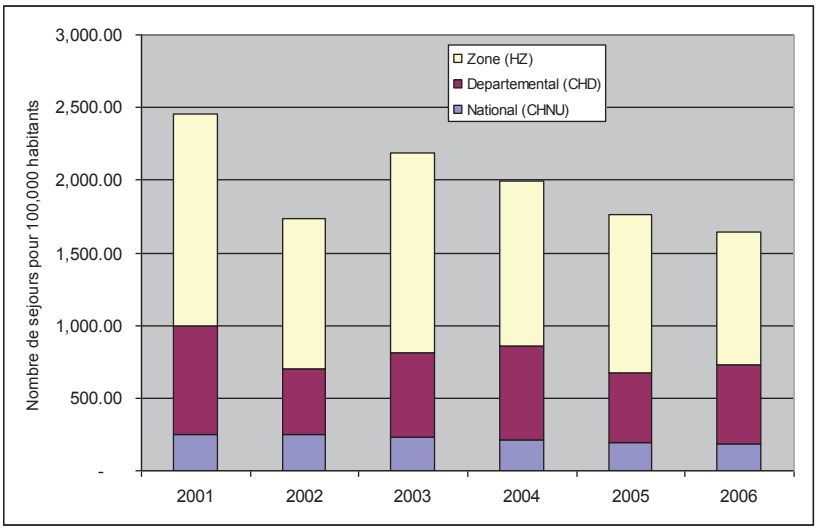
At the end, we can assume that the demand for hospital care remains strong and that the public hospital system is not able to respond to the demand, which could be explained by deterioration in the quality of services and allocated resources. The available human and physical resources in the hospitals are in fact to little. From 2005 to 2015, the records found are in the table below:

Table 24: Human and Physical Resources in the Hospitals

	2005	2008	2011	2014	2015
Hospital beds (per 1000 people)	0,5	""	""	""	""
Nurses and midwifes (per 1000 people)	""	0,8	""	""	""
Physicians (per 1000 people)	""	0,1	""	""	""
Specialist surgical workforce (per 100000 people)	""	""	""	1,8	""

Source: World Bank Statistic on Benin under http://databank.worldbank.org/data/reports.aspx?source=health-nutrition-and-population-statistics.

Graphic 8: Hospitalization Rates per 100,000 Inhabitants (2001-2006)

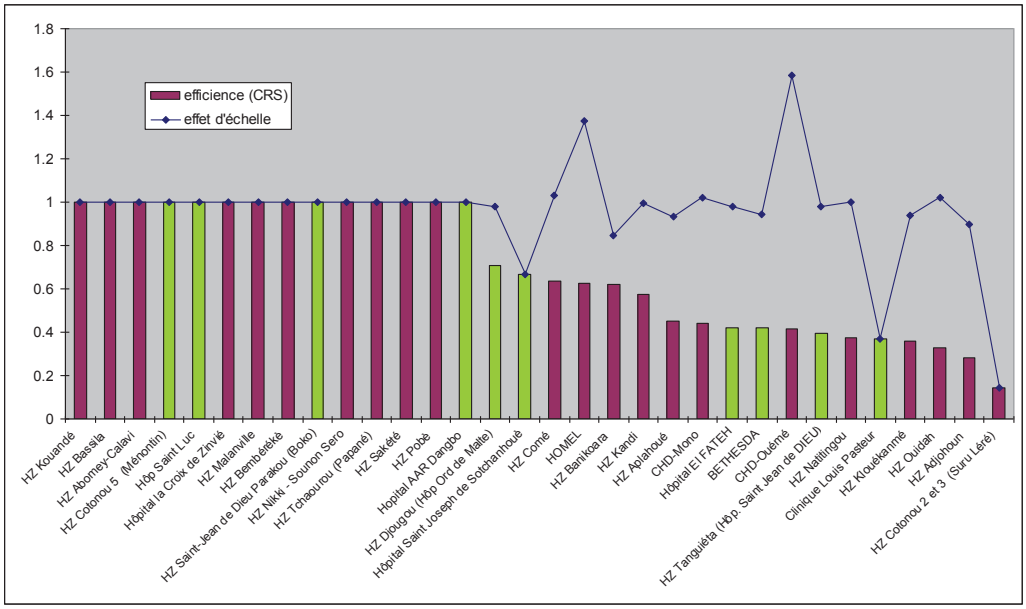


Source: SNIGS.

The overall efficiency of the hospital system (public and private) remains limited, with an index of 62 %. To measure the efficiency of hospitals in Benin,

the method of *Data Envelopment Analysis* (DEA) was used and covers more than 80 % of hospitals in the country. This analysis shows that the efficiency index is only 62 %. In other words, 38 % of hospital resources (staff and beds) are "wasted." The index of 62 % is relatively low, particularly compared with 73 % in Senegal.

Graphic 9: Technical Efficiency and Scale Effect in Hospitals in Benin (2006)



Source: Data of MS and Analysis of the World Bank
N.B.: Histogram bars correspond to the level of efficiency (ranging from 0 to 1) of each establishment as estimated by the DEA algorithm. The curves correspond to the scale effect of institutions.

When the point of the curve is greater than 1, the care unit is in a situation of decreasing returns. Its size (beds and/or staff) is too large. Conversely, care unit that is less than 1 is also in conditions of increasing returns and should therefore increase its size. Unsurprisingly, the benchmark institutions are less efficient. The two departmental/County hospitals (CHD) and national hospital such as Mother & Child (HOMEL) have an efficiency index between 41 and 62 %. It is also among them that we found the two hospitals in strong decreasing returns (Homel and Ouémé CHD). This is due in Benin to the relatively recent creation of CHD. Today, they are not already in the position to struggle such difficulties.

In contrast, private units do not seem more efficient than public hospitals. Private hospitals are indicated by light colored bars. The average efficiency of both sectors hovers around the index of 62 %. It is true that the activity data of private unit were less reliable and harder to collect than for the public.

4.2.2 A Technical and Organizational Quality of Care

Some indicators show real progress in the technical quality of care, including prenatal care. There are certainly no consensus indicators to measure comprehensively the quality of care in Benin, either in Africa or elsewhere.

However, we can measure the quality of care through consultation procedures performed during the Pre Natal Consultations CPN. According to EDS/DHS 2006, almost all women attending CPN received a measure of weight (99 %), or size (96 %), a check of blood pressure (99 %), of abdominal palpation (99 %) and urine samples (92 %). In contrast, blood samples were infrequent (40 %), as well as nutritional advice (45 %) or information about signs of pregnancy complications (39 %).

Organizational quality remains low. Organizational quality refers to aspects of reception, accommodation and more generally the courtesy to patients[615]. While they are not the most important barriers in access to care, these problems remain significant.

The table below shows the frequency of problems encountered by women who seek care (EDS 2006). These data structures concern all public and private healthcare units. These indicators are higher in the public sector.

Table 25: Prenatal Therapy

	2005	2008	2011	2014	2015
Pregnant women receiving prenatal care (%)	“”	“”	“”	82,4	“”
Pregnant women receiving prenatal care ≥4 visits (% pregnant women)	“”	“”	“””	58,8	“”

Source: World Bank Statistic on Benin under http://databank.worldbank.org/data/reports.aspx?source=health-nutrition-and-population-statistics

Although there is a notable irregularity in the care of pregnant women, cultural based problems seem to keep women from the care. At least, the problems of distance and of transport at the beginning 2006 are now near by solved. The therapy centres are some 5 km around residence areas.

Despite some encouraging signs, it is unlikely that the quality of care has improved overall. The government in 2007 created a National Committee for Quality Assurance Health Sector (CNAQSS) and seeks to develop a national

[615] It is the concept of, “responsiveness” as used by WHO.

policy to improve the quality of care. Meanwhile, Beninese people initiatives at the hospital of mother and child (LAGOON-HOMEL) in Cotonou, obtained the certification ISO 9001 in three clinical sectors and foreign donors (Switzerland and United States). But the impact of these efforts is probably very limited.

Table 26: Problems Faced by Women by their Use of Health System

Type of problem	Frequency	Range
Getting the required money to go at	73,9	1
Too expensive	56,7	2
Distance	38,1	3
Have to take any transport modus	36,6	4
Waiting too long	30,4	5
Staff absent or late	29,2	6
Not efficient Care	24,2	7
Poor reception	23,6	8
To go there alone	21,6	9
To know where to go	18,3	10
Lack of female staff	16,0	11
Get permission to go	14,9	12

Source: EDS 2006.

4.2.3 Evaluation of Non-Clinical Functions

We should also evaluate the effectiveness of the care system, especially at higher levels of the pyramid in terms of: (i) initial and ongoing training of staff and (ii) supervision.

The monitoring device is particularly weak, since it is abandoned by the funds. There is no data on the number and type of performed supervision.

Supervisions are very irregular and their realization depends largely on the availability of funds. They seem particularly referred to an exercise of personal enrichment. Indeed, the supervision is more administrative than clinical. For example, when supervising a health center, the MCZS are especially interested in collecting financial information, including those regarding community participation[616] and those of PEV. With their level of training in public health, MCZS have difficulties to achieve this kind of purpose.

[616] It is true that EEZS (MCZS included) get some of this benefit.

The poorest have serious difficulty to access to care systems, particularly for hospital services. In the absence of complete data of the survey on living conditions (Integrated Modular Survey on Household Living Conditions EMICOV), it was not possible to analyze the equity of access to care system for all services. We can only say that the gradient is related to income especially for childbirth and postnatal care. It is likely that the greatest inequity regarding hospital services is linked to higher cost of these services.

4.3 Financial Protection

It is usual to consider the financial protection of the population (i.e. protection against the risk of catastrophic health expenditure) as the business of health care financing system (health financing) and not the production of care (health care delivery).

Today, the experience of some countries (e.g. Kyrgyzstan) showed that direct spending by patients could be significantly reduced through (i) improved efficiency of the production system of care and (ii) better control of prices. Given such difficulties in Benin, policies for risks sharing as the creation of mutual funds or Medicare are urgently required. In the commercial private sector, a national grid has been developed by the Association of Private Hospitals of Benin (ACPB), even if they not always respect it.

Table 27: These Issues have an Impact on the 4 Specific Performance Criteria

		Effectiveness	Effectiveness	Equity	Financial Protection
Range of services	Mix of services	✓✓	✓	✓	
	System de reference	✓✓	✓		✓
Resources of care system		✓✓	✓✓		✓
Regulatory mechanisms	Objective	✓	✓	✓	
	Autonomous decisions	✓✓	✓✓		
	Management skills	✓	✓✓		
Type of Financing		✓	✓✓	✓✓	✓✓

Source: Association of Private Hospitals of Benin (ACPB).

In the public sector, the pricing of medical procedures is rather confusing and does not much rely on the actual costs of healthcare provision. A pricing structure exists but it has not been updated since the devaluation of the CFA in 1994. However, a legal provision allows some price adjustments at the local level. These adjustments are made by the board of directors in hospitals (or COGECS) or by team of the local Zone. The prices take only very partially into account the true costs of services. Specialized accounting tools are also generally absent.

4.4 Supply and Demand for Care

One factor in performance of a system of care is the adjustment of supply to demand of services. A system can indeed be very effective if some services are not offered, which implies unmet demand for care and/or abroad transfer of patients to expensive care. Conversely, some care, such as eutocic birth care may be offered by several levels of care within the same region (Overlap), which leads to wastage and a decrease in care quality[617]. Despite the apparent consistency of the administrative system of Benin, some advanced services are not available, while other basic services lead to unnecessary competition between some nearby plants. Benin has structured its health care system as a pyramid with three levels. The national level is represented by the CHNU-KHM. Despite its size and its capabilities, this unit does not offer all the benefits that can normally expect from a tertiary hospital. This explains the magnitude of the "evacuation" (about 4 billion FCFA per year, or nearly 10 % of the budget of the Ministry of Health). Conversely, the distribution of activities between the departmental level and zone level is not always clear, especially as some departments do not have departmental hospitals (CHD). Similarly, if Zone hospitals are the only structures to offer Zone hospitalizations, ambulatory activities may duplicate those of health centers (and vice versa), and this is due to the lack of respect of norms.

[617] If the same volume of activity is dispersed among multiple providers, they cannot benefit from the effect of, "experience curve". This is particularly the case for invasive medical procedures.

The indicators[618] include: density of physicians, nurses, midwives, and hospital beds; inpatient admission rates, average length of stay in hospital, and outpatient visits per capita.

Table 28: Medical Resources and Usage

	2005	2008	2011	2014	2015
Nurses and midwifes (per 1000 people)	“”	0,8	“”	“”	“”
Physicians (per 1000)	“”	0,1	“”	“”	“”
Specialist surgical workforce (per 100000 people)	“”	“”	“”	1,8	“”
Hospital beds (per 1000 people)	0,5	“”	“”	“”	“”
Inpatient admission rate (% of population)	..	..	..	..	..
Hospital, average length of stay (days)	..	..	..	..	..
Outpatient visits per capita	..	..	..	..	..

See World Bank Statistic on Benin under http://databank.worldbank.org/data/reports.aspx?source=health-nutrition-and-population-statistics.

Relationship between levels

The effects of insufficient coherence of the health system are exacerbated by weaknesses in the referral system. There are no studies and no national survey of the reference system, at least at the national level. The system ignores which percentage of children or pregnant women are referred to higher (tertiary) levels. Similarly, at the higher levels of the pyramid, the proportion of patients who could be supported at a lower level is unknown.

This impression is reinforced by organizational weaknesses of the model: (i) clinical training (to identify cases to be referred) appear to be rare, (ii) financial incentives for reference do not exist, (iii) vehicles (ambulances) to ensure transfers are not always available or functional. In general, the lack of data collection on the reference system demonstrates the low priority given to this essential issue.

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[618] See **World Bank** in “Thematic Data: Health, Nutrition and Population Data and Statistics”, the World Bank, Washington, DC, 16th November 2016 at 5:20 PM under http://datatopics.worldbank.org/hnp/ThematicData

4.5 Adequacy of Health Services

4.5.1 Facilities and Buildings

If we define availability as the existence of health center in each county/district[619], at least 90 % of county/districts benefit from the existence of at least one health center (MS 2006). Given the small size of districts, we can say that 90 % of the population lives within 5 km around a health center but about 76 % of women have the benefits of it. In terms of travel time, the situation is more favorable, since over 84 % of women thought to be at less than 30 minutes of a health center. The perception of household is rather deterioration. When taking into account the "feature" (the availability of personal to manage the structure), coverage is lower and falls to 63 %. When an even more restrictive criterion is hold, the ability to implement the minimum activity package (PMA) is worsened, coverage of districts is only 46 %. Therefore, priority should now be allocated to adequate human resources to the most destitute structures. Invest in building and/or new health centers do not seem really relevant at the expense of functionality and coverage. Between 2011-2014, according to MS Report 2014 the scores have positively changed and the structure of health is better off as in 2006.

4.5.2 Human Resources

The personal of health units are not well distributed over the territory and their performance (i.e. competence, quality and productivity) is very limited.

4.5.3 Drugs

The activity of unit is severely limited by the insufficient availability of drugs and their prices are also very high. This limited availability is due to both: the institutions themselves as the CAME. In this case, stock-outs seem primarily related to the inability of many health center managers to control the drug in sufficient quantity and with regular frequency. But CAME is not always able to deliver all the orders placed by institutions. It is also true that robberies in the stock of drugs by health personal are very common. Similarly, the price of drugs is especially high by the health facilities, which does not make them at-

[619] According to the standards produced by the MS, each district must have a health facility (CSA at minimum). The coverage rate is calculated as the ratio between the number of districts with at least one health center and the total number of districts.

tractive. But, throughout the supply chain, it is the institutions that apply the highest coefficient. This reflects the fact that a significant portion of their budget depends on the revenues from the sale of drugs.

4.6 The Booster of Performance

4.6.1 Regulation Mechanisms

Fund and regulation: two possible models

A key factor to improve the performance of a healthcare organization is to clearly define the objectives of this organization, and regularly and objectively measure the results, and then impose the necessary changes or adequate policy. Despite the apparent simplicity and obviousness of the concept of control (accountability), we can observe that it is often poorly implemented, especially in the health sector in Benin. When government began a policy regulating care services, it can choose between two models: on state side (supply), the other based on the market (demand).

The model based on the supply requires that government becomes the pilot of the system, what imply that it must achieve its specific expectations for care services and monitor the results. Such a model involves the implementation of several mechanisms:

- a planning of the supplied services, which is regular, locally available and most comprehensive in nature (i.e. taking into account also the private sector and all levels of care),
- a contract between the government and care services so that each facility is not only clear targets (production and quality), but also funded with adequate resources, and
- governance in which the State is fulfilling its really role as a driver and it is strongly represented on the board of directors of each institution.

This model also implies that care services are primarily funded by the state. The amount of the annual allocation must be consistent with the objectives assigned to each structure.

Conversely, the model based on demand assumes that the demand for care must be granted by a health insurance system that spontaneously operates, and that constitutes an acceptable guide for the organization of the system care.

Contrary to popular belief, this model does not correspond in any way to a laissez-faire, but rather involves the implementation of very specific mechanisms:

- funding of care services provided directly by patients as the "Community financing" in Benin, which implies that institutions are not funded by budget, but through action or hospitalization (DRG type),
- Preferably, a mechanism for health insurance for poor and/or preventing expenses called "catastrophic",
- a system of control of care quality in the same order of accreditation/ISO-standard and
- governance mainly provided by patients or by the representatives of the community.

None of the two models do let appear the consideration that the one is better than the other. Problems such as inconsistencies arise in implementing them. They are often linked to the absence of explicit choice between two models, or more simply the absence of a genuine desire to regulate the plants or units. Similarly, both models cannot function without a strong institutional empowerment. While Benin has chosen more or less an implicit model of regulation by the supply, care services are still lower controlled and the mechanisms of this regulation remain also very low. In regards of planning, despite the existence of relatively sophisticated dispositive, it continues to plan for instance specific activities (vaccination) and not enough routine clinical activities (caesarean). Inevitably, this type of planning leads to too low taking into account the demand for care. This is far from real health organization strategies[620].

Secondly, many developed plans are not respected. Conversely, the device of contracting is well underway. Launched in 2007 in 3 health zones, such contracts are consistent with the approach of state regulation, since they define the clinical goals which have to be achieved and to allocate resources to those zones. Finally, funding for care services is quite hybrid and not always consistent. From the Ministry of Health, the share of revenues (excluding salaries of the officials) is estimated at between 39 and 56 % (i.e. delegated credits/loan). We are therefore in a situation of competition between the state model and the market model.

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[620] That would define the role for each department of each clinical care services (for example, in obstetrical).

There are also regulatory mechanisms of demand, but they remain undeveloped. The other major source of funding for care services is made by the "community financing", that is essentially the revenues from the billing of drugs. Paradoxically, direct financing by the patients did not generate a management culture focused on customer and demand for care. It is possible that this reflects the fact that community revenues are almost entirely captured by COGECS for the benefit of often unqualified personnel recruitment.

Unlike what can be observed in Senegal, health workers do not really have the funding (i.e. Benin, premiums are rarely based on Community funding, while in Senegal, this premium called "incentive" represents more than half of the salary). Other market mechanisms are almost nonexistent. Regarding insurance, the few systems in place (community mutual and indigent funds) cover a so tiny proportion of the population. Regarding quality, we have seen that there is no qualitative assurance system, or mechanism of accreditation.

4.6.2 Autonomy of Decision

Principles of empowerment

Indeed, improving the performance of care get through its empowerment. But it is also clear that this empowerment can only succeed over two conditions: (i) if it is accompanied by a strengthening of regulation by the state or the market, as the discussed above, (ii) if empowerment is consistent between different areas of management (i.e. Finance and Administration). Specifically, there are four main areas of empowerment, all of which must have the same rhythm, if we want to avoid driving care unit into intractable situations:

- Autonomy of logistics: This is to allow institutions to buy medicines and supplies for the amount of their choice from providers of their choice; it is also to let them free to invest according to their strategies;
- Autonomy of human resource management: is to let the institutions (i) free to choose profiles to hire, (ii) free to punish or dismiss non-performing agents and (iii) free to pay the performing agents (for example by determining the level of incentive to be awarded);
- Autonomy of governance entails to create a board of essentially elected administrators with the adequate power to define the strategy of the institution

and monitoring its implementation, including to change the director, if necessary;

- Financial autonomy: exists (i) when institution receive from state or patients non-discretionary revenue and therefore based on real activity, (ii) where such institutions may set their prices and (iii) when they are free to manage their spending as they wish according to their strategies.

We observe immediately that empowerment can lead to chaos if not accompanied by a strengthening of regulatory mechanisms. In this context, the empowerment is very much different from privatization. In Benin, when health units/institutions are fairly autonomous in terms of logistics (i.e. including the order of medicines and comestibles), this autonomy is still weak in terms of human resource management. This is obviously related to the fact that most health personal are qualified employees without fear of dismissal. In terms of governance, autonomy has increased with the recent creation of low representative COGECS. They have little power. Finally, on the financial front, we saw that the assigned funds are not really related to the real needs of medical units. With such little autonomy, we can explain the low performance of the institutions as of the actors. None of the actors has really interest or the ability to improve service to patients, since it will not change its funding or remuneration.

4.6.3 Management Capacity

It is not surprising that this low empowerment and the weak regulation including low management capacity of managers of care services. The management capacity is purely insufficient.

4.7 Methods of Financing Health Services

All care services have essentially four types of resources: (i) salaries of State officers assigned to each facility, (ii) Community revenue (user fees), (iii) The assigned funds, paid by the Ministry of Health, and (iv) Occasional aid of technical and financial partners. Each of these sources poses several problems. The state officers serving in care are still centrally funded. A state officer (permanent and contractual) is paid directly by the Treasury. This management solution seems to be most appropriate for Benin. However, it is surprising that health facilities are not “owners” of their budget items.

The replacement of a mutated agent lead to that, the institution is embarking on a long and uncertain lobbying for the appointment and funding of a new agent. The performance of health care services would be greatly improved if the budget items were allocated directly to the units. Moreover, the assigned funds appear to represent an increasing share of financing health care services, but do not follow the actual activity of institutions.

It was not possible to reconstruct the budgets of health facilities, but a study (Zou 2008) considers that these funds now account for between 40 and 60 % of revenue (excluding state officers). The reality is probably close to the low amount: 40 %, as was verified in other counties/departments[621]. However, there are no formal criteria for determining the amount of credits to be delegated, especially since they do not follow the activity of units. The mechanism remains highly discretionary, which does not promote performance. Community funding (billed directly to patients) became the principal resource for institutions at the expense of equity and no gain in performance. Revenue from the sale of drugs and billing services are now more than 50 % of revenue (excluding state officers). Most part, up to 69 % of Community revenue come from the sale of drugs, although the proposed price is often very high, so then fueling the expansion of the illicit market. The level of tariffs does not in fact correspond to actual costs. All over, national total expenditure on health in Benin in the period from 2005 to 2015 is recorded in the table health financing below. The indicators show: total health expenditures, public health expenditures, private health expenditures, out-of-pocket health expenditures, and external resources for health[622]. Since 2007, Benin has managed to stay in the middle field, but its efforts are not substantial enough. According to the World Bank Data (2015), the health expenditure per capita in US$ increases steady, whereas its amount in term of percentage of GDP fluctuates enormous from 2,4 to 2,1 – 2,9 – 2,3 respectively for 2005 – 2008 – 2011 and 2014. The same fluctuation appears for total expenditure in percentage of GDP. The out-of-pocket

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621 The simple analysis of 2006 data on delegated credits and on community revenues confirm that they become the main source of funding (between 50 and 80 % of revenues, excluding state officers).

622 See World Bank in "Thematic Data: Health, Nutrition and Population Data and Statistics", the World Bank, Washington, DC, 16th November 2016 at 5:20 PM under http://datatopics.worldbank.org/hnp/ThematicData

generally and specially the percentage of private expenditure on health decreases steady due to the multitude of charitable suppliers on the market.

Table 29: Health Expenditure

Health Financing	2005	2008	2011	2014	2015
Health expenditure per capita (current US $)	25,2	31,0	40,0	37,9	""
Health expenditure per capita PPP	66,8	66,4	88,2	85,6	""
Health expenditure, private (% GDP)	2.4	2,1	2.4	2,3	""
Health expenditure, private (% total health expenditure)	50,3	49,0	45,4	51,0	""
Health expenditure, public (% GDP)	2,4	2,1	2,9	2,3	""
Health expenditure, public (% government expenditure)	11,1	9,3	13,3	9,6	""
Health expenditure, public (% total health expenditure)	49,7	51,0	54,6	49,0	""
Health expenditure total (% GDP)	4,7	4,2	5,4	4,6	""
Health expenditure total (current US $)	206301874,6	278316260,7	391370227,1	401570633,3	""
Out-of-pocket health expenditure (% private expenditure)	94,9	91,1	787,9	76,7	""
Out-of-pocket health expenditure (% total expenditure health)	47,7	44,7	35,9	39,1	""

See World Bank Statistic on Benin under http://databank.worldbank.org/data/reports.aspx?source=health-nutrition-and-population-statistics.

In 2010[623], Benin was accounted between the countries which total health expenditure per capita was less than US$ 44 and the amount of "out-of-pocket" is more than 20 % of the household budget. In other word, the General government health expenditure as a share of general government expenditure (GGHE/GGE) was less than 15 %). Two of the best records about allocation within a medical station such as a sanitary zone (Zone Sanitaire) were given by

[623] See http://apps.who.int/iris/bitstream/10665/101282/1/9789290232131.pdf.

the SNIGS/DPP 2006 as below. Drugs, other expenses and staff are respectively 69 %, 15 % and 14 % the highest allocation of the community.

5 Community Financing

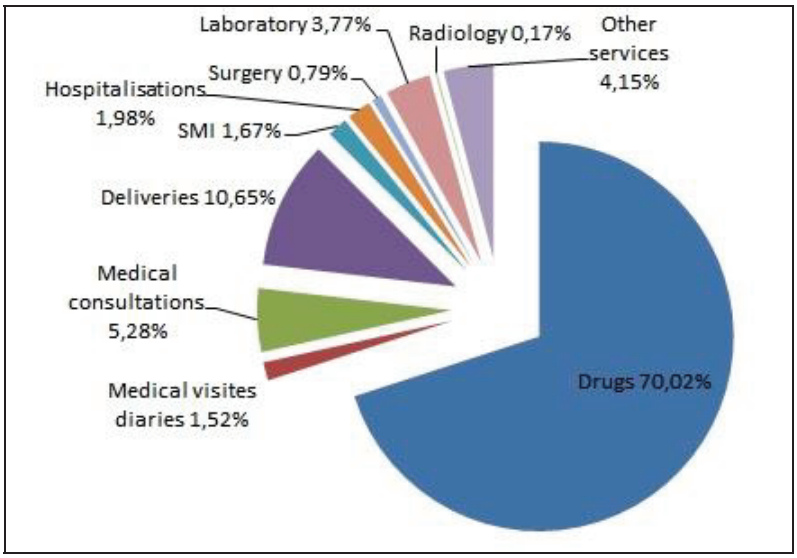
At this level, we can take as example[624] the poorest counties/départements of Benin: Atacora and Donga. The state of revenues and expenses below for both counties is in details well documented.

Table 30: Distribution of Revenue in the Community Funding in Atacora in 2014

Rubric	Amount	Percentage
Drug	229672377	70.02
Medical Visites Diaries	4998150	1.52
Medical consultations	17311955	5.28
Deliveries	34939850	10.65
SMI	5464510	1.67
Hospitalisations	6509255	1.98
Surgery	2602670	0.79
Laboratory	12380100	3.77
Radiology	542435	0.17
Other Services	13597237	4.15
Total	**328018539**	**100**

Source: SPIRS/DDS-AD 2014, Translation of the author.

Graphic 10: Distribution of Revenue in the Community Funding in Atacora in 2014



Source: SPIRS/DDS-AD 2014, Translation of the author.

[624] See http://www.beninsante.bj/documents/DDS_AD/ASS_2014_DDS_AD_VFok.pdf.

Table 31: Distribution of Expenditure in the Community Funding in Atacora in 2014

Rubric	Expenses	Percentage
Drugs	200904995	60,88
Small Equipment and Supplies	3125665	0,95
Energy	12171735	3,69
Provisions	6730155	2,04
Transportation	8763950	2,66
Maintenance and Other Services	20365390	6,17
Other Expenses	42884605	12,99
Personal	10112100	3,06
Premium	22864120	6,93
Construction	1565516	0,47
Equipment	534368	0,16
Total	**330022599**	**100**

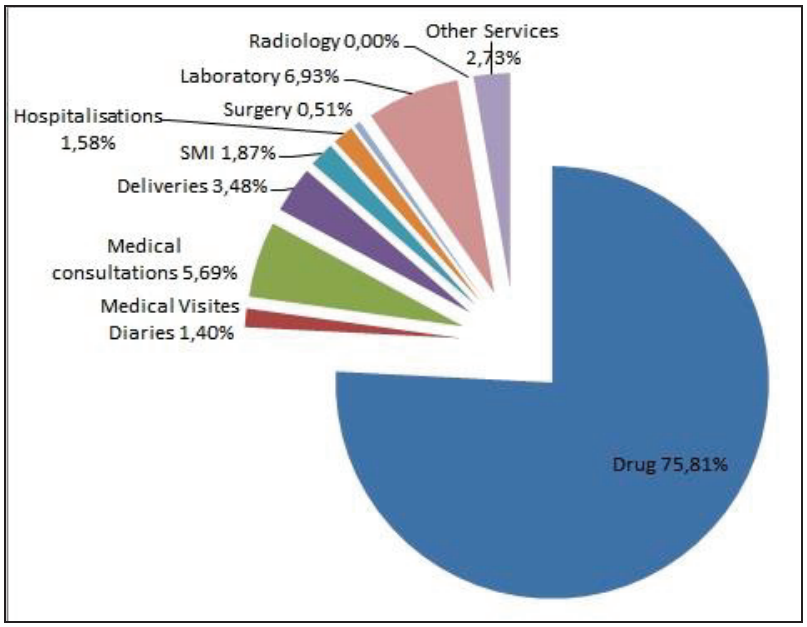
Source: SPIRS/DDS-AD 2014, Translation of the Author.

Table 32: Distribution of Revenue in the Community Funding in Donga in 2014

Rubric	Amount	Percentage
Drug	410482580	75,81
Medical Visites Diaries	7593330	1,40
Medical consultations	30828080	5,69
Deliveries	18821765	3,48
SMI	10149530	1,87
Hospitalisations	8551640	1,58
Surgery	2736000	0,51
Laboratory	37548950	6,93
Radiology	0	0,00
Other Services	14776711	2,73
Total	**541488586**	**100**

Source: SPIRS/DDS-AD 2014, Translation of the Author.

Graphic 11: Distribution of Revenue in the Community Funding in Donga in 2014



Source: SPIRS/DDS-AD 2014, Translation of the author.

If it is already so expensive in Atacora and Donga; in other counties such as Cotonou, Atlantique and Oueme, the expenses will be far higher. The amount expended to drugs is very enormous followed by that of "other expenses". Staff that in 2006 represented some 14 % has falls under 4 % in 2014 for example.

On the other side, daily advertisement on radio and TV make it very hard for common people to continue to trust trust the natural and traditional medicines and drugs. This should be a great field of research to promote these kinds of drugs and to educate the traditional physicians.

Overall, despite the extent of Community financing, the system of financing health care services does not reward efficiency. The volume of financing related to state officers is mainly associated with the procedure and the lobbying efforts made. It does not follow the assigned funds also; there is no formal criterion to link the amount of these credits to activities of the institutions. Finally, community funding, if it follows, by construction, the activities of the institutions, it is not accompanied by device of solvency of demand and it does not reward efficiency; because it essentially consists of the sale of drugs and the tariff structure is unrelated to actual operating costs of institutions.

6 Financing the Health System in Benin: An Outline

6.1 Financing Procedure

Resource Mobilization is still very influenced by the direct spending by households. Households are the first financier up to 52 % of the health system. The state pays nearly 31 % of expenses, the rest being covered by international donors (16 %). The other actors (local governments, public and private companies, NGOs) play a negligible role but increasing in its amount and role, less than 1 % of system resources.

In risk sharing or risk pooling, given that the share of households funded system is essentially made up of 99 % by direct payments, the level of progressivity and fairness of the system therefore is very low. Direct payments by households are primarily made up by purchases of medicines and the payment of consulting fees or hospitalization. The amount of such payments does not vary according to income level of users.

There is currently no effective mechanism to share risk for households. This lack of mechanisms particularly unfair, are only slightly offset by the subsidy mechanisms of demand financed by the state.

By analyzing how unfair health expenditures is financed, potentially catastrophic expenditures are essentially at the charge of households. Catastrophic health expenditures are those that can push households into poverty because of their high amount and/or unpredictability.

To these belong hospital care (visits) and medications. They should be supported as much as possible by the state and/or the community. In Benin, we find that expenditure on hospital care is financed up to 43 % by households, especially the drugs at 99 %.

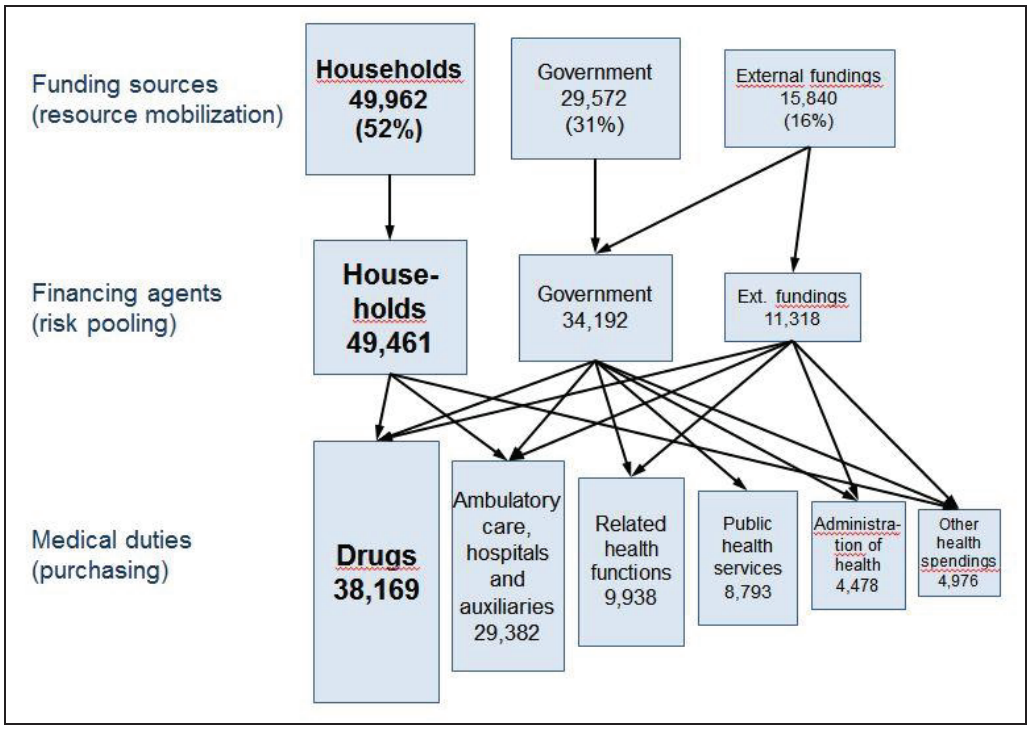
For those already poor households, it is not only unfair but generates poverty.The schema of financing health in Benin is still, in its important line, the same, only the reported amount has a little changed. If we take into account the inflation and the cost of daily life, the decrease of the part paid by the household is no more relevant. Table 33 and figures 7-8 below are the examples of allocation's schema.

Table 33: Financing Health Functions by Financing Agents

	Government (Ministry of Health & other Ministries)	Direct payments by households	International donors	Total
Hospital care	51 %	43 %	6 %	100 %
Outpatient care	33 %	16 %	48 %	97 %
Long term care (psy)	100 %	0 %	0 %	100 %
Laboratory and imaging	36 %	62 %	0 %	98 %
Drugs	1 %	99 %	0 %	100 %
Forecast/provision	78 %	0 %	22 %	100 %
Health administration	73 %	0 %	27 %	100 %
Other health expenditures	37 %	63 %	0 %	100 %
Capital formation	100 %	0 %	0 %	100 %
Education & Training	100 %	0 %	0 %	100 %

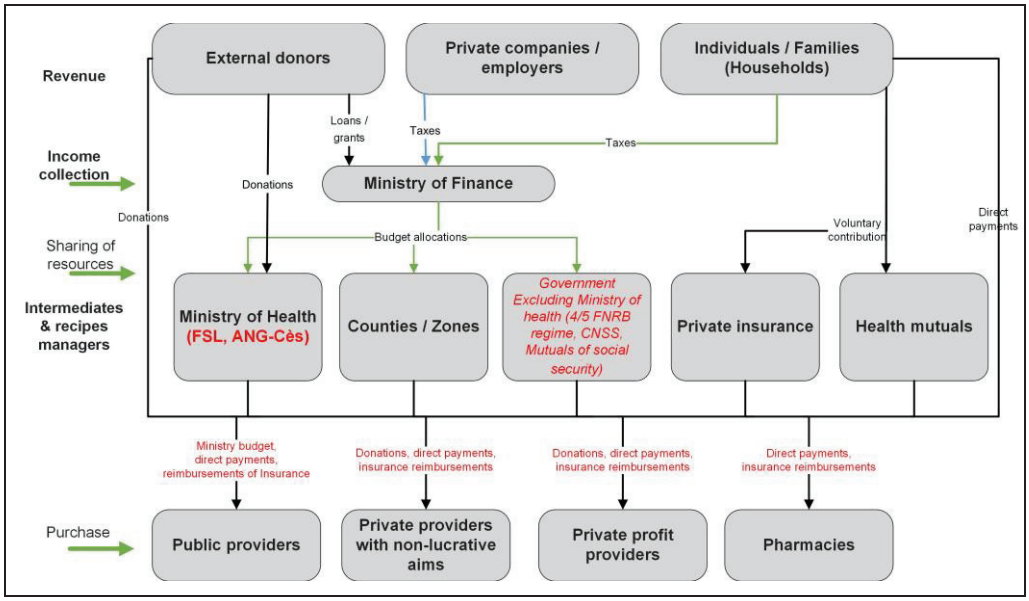
Source: CNS 2006 (Data 2003).

Figure 7: Main Financial Flows in the Health System in Benin



Source: USAID 2006 (CNS Data 2006), NB: – the amounts are in millions of CFA francs; – by "government", we mean all Ministries (not just the Ministry of Health); – at the 3rd and final level on the chart, we took into account the "health functions" purchased, regardless of providers who deliver them.

Figure 8: Financing Health System in Benin (2014)[625]



Source: http://www.mepppd.bj/wp-content/uploads/2015/06/Evaluation-de-la-politique-de-gestion-du-syst%C3%A8me-de-sant%C3%A9-au-B%C3%A9nin.pdf page 45.

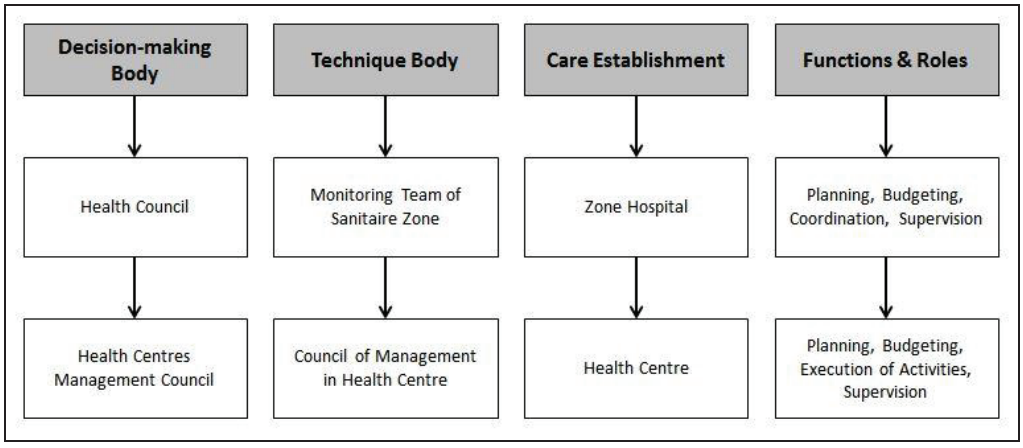
625 See "Evaluation de la politique de gestion du systeme de santé au Bénin: version finale" by Driection Générale de l'Évaluation, Laboratoire d'Appui au Management et des Etudes Novatrices, Cotonou/Bénin, Juillet 2014 under http://www.mepppd.bj/wp-content/uploads/2015/06/Evaluation-de-la-politique-de-gestion-du-syst%C3%A8me-de-sant%C3%A9-au-B%C3%A9nin.pdf.

All these charts about the financial flows into the health system of Benin are descriptive but very explicative for the expectation. The flows are not imperative directed to the end use but adequate flexible to the priority of need so then indicative directed.

If we get closer to the structure, out of the three levels: National – County – Periphery, each one from national down to periphery is made up the next. The peripheral level is made up of many sanitary zones. The health/sanitary zone is the most decentralized operational entity of the system. The following graph below shows the flowchart[626] of the zones in Benin.

The Government funds the health system through several channels. Essentially, it directly funds the provision of public care in form of inputs to this subsystem. Funding is also indirectly made over the demand for care, through the Fund and the Indigent program of free care[627].

Figure 9: The Flowchart of the Health Zones and Operations & Administration Procedure



Source: Translated from French by the author, September 2th 2016 at 6:00 PM under http://www.beninsante.bj/documents/DDS_AD/ASS_2014_DDS_AD_VFok.pdf.

Although since 1997, the MS budget has increased by about 10 % annually, its share in the general budget of the state has fallen sharply, from 15-16 % to 8-9 % over the same period. It is thus far from the 15 % recommended in the Abuja conference. In contrast, total health expenditure has steadily increased by about 20 % each year.

626 See http://www.beninsante.bj/documents/DDS_AD/ASS_2014_DDS_AD_VFok.pdf.

627 In fact, with the Fund for Indigent Health program and free health care, the state continues to fund the supply. However, it funds more inputs, but the activities, including activities conducted for the benefit of some population groups (i.e. the poor, children under 5 years and pregnant women).

The available data suggest that the state spends a little less than half of its resources to finance pro-poor services. It is common to analyze the pro-poor expenditure of the State by an analysis of the level of subsidization of the services most used by the poor. It is the Benefit Incidence Analysis. It is easier to analyze the distribution of government expenditure by type of provider and type of health intervention. It is assumed that the poor will benefit primarily from ambulatory health centers and immunization programs. Ironically, hospitals are generally unfavorable to the poor, not least by their costs and their low density in geographical accessibility.

A state must in principle support the activities of care most needed, not only in terms of effectiveness of interventions funded, but also in terms of target populations. We can evaluate the results in this field through several tests: (i) toward the most populated areas according to its share of funding, (ii) over the amount consumed by the central level, specifically the function of administration of health, (iii) funding of the most effective interventions (best-buy). The fact remains that the share allocated to the regions is very unfair, even though progress has been made. Indeed, we have retained expenses directly affecting regions, namely (i) the assigned funds, (ii) the grant CHNU[628] (Atlantic Coast region) and (iii) expenses related to staff holder (EPA-ACE). The share of expenditure consumed by the central in relation to its operation does not seem excessive. By not taking into account the costs that cannot be distributed, we arrive at a ratio of 12 % of total expenditure on the functioning of the central level, which does not seem excessive. However, despite steady progress, the share of spending still controlled by the central level remains very high.

In contrast, the share of resources devoted to investment tends to decline since 1999. As the chart shows, the share of investment (Multiyear Investment Program PIP) decreased by 58 % of the budget in 1998 to 45 % in 2006. Clearly, the strong fiscal deceleration of 1999 obliged various ministers to “sacrifice” investment for the benefit of expenses. The operating costs of MS are mostly made up by staff costs close to 43 % of total, transfers to decentralized structures (22 %) and medical evacuation outside of Benin (14 %). Indeed, a funding system can target the most effective interventions and populations most in need, but still totally ineffective because the funds cannot be disbursed in full.

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[628] Ideally, we should also add the subsidy COGEC, but its allocation by region is not known.

Two problems may explain this situation: (i) weaknesses in the procurement (weaknesses that can be explained by an insufficient delivery rate) and (ii) practices of waste and embezzlement. The rate of implementation of the health budget has deteriorated sharply in recent years, primarily in the PIP (Programme d'Investissement Pluriannuel PIP).

Although it is impossible to quantify the amounts wasted or misappropriated resources, it is likely that their amplitude is significant. Waste and misappropriation take many forms: personal absenteeism paid by the state, dropping maintenance facilities for the benefit of a policy of systematic purchase (it seems more "profitable" to buy equipment rather than making a real maintenance), let expire and theft of drugs, etc. Moreover, the principle of free Caesarean (at birth) was chosen in 2008 and must be implemented in 2009. Targeting this service seems very opportune. It remains to define precisely the amounts to be paid to institutions and the payment circuits.

6.2 Health Funds of Indigents[629] (FSI) for Equity in Benin

"Health Equity Fund" means a fund (i) that is used to reimburse health facilities used by patients who are unable to pay their medical expenses, (ii) which is managed locally and (iii) including the identification of beneficiaries but independently of the state. A first mechanism was established in 2000 and was fund with approximately 1 MA CFA each year. Its use seems to have been misguided. The new mechanism introduced in 2005 therefore tries to limit successfully abuses, through three provisions:

(i) If the **FSI** supports the bulk of care at primary and secondary level, however, it clearly excludes the costly charges of chronic diseases i.e. chronic sicknesses and prostheses, hemodialysis, medical evacuation, etc.

(ii) For each treatment, a maximum amount is defined i.e. consultation is repaid within the limit of 1,000 FCFA, hospitalization within the limit of 1,750 FCFA per day for up to 10 days, birth in the limit of 15,000 CFA francs;

(iii) Identification of needs or indigents i.e. a certification of indigent is performed by a local committee created to identify it at each health unit level. This committee is composed of (i) the head of the medical unit, (ii) the Chairman of COGEA/C, (iii) a representative of local elected officials i.e. mayor or district

[629] See: Mechanism of use of Indigent Fund, DRFM, July 2005.

chief, (iv) a representative of social services i.e. Social Promotion Centers. A social survey is conducted and its results are subject to the Identification Committee that decides to support or not, under the FSI. In total, the FSI of Benin partly meets the requirements of a Health Equity Fund. If it is effectively managed locally, the identification of beneficiaries is still very influenced by the state and especially its health officials.

Table 34: Correlations of the Credits and Expenditure of the FSI based on the Poverty Profile

	Allocation of FSI credits 2006	Consumption of FSI credit	FSI Beneficiaries
Richest	0.2432	0.4436*[630]	0.4061*
Enough rich	-0.1088	0.1729	0.1387
Median Class	-0.1504	-0.0580	-0.0934
Poor enough	-0.4263*	-0.5020*	-0.5281*
Poorest	-0.4424*	-0.5166*	-0.5288*

Source: CNS 2006 (Data 2003). * Significant at 5 % test of nullity of the correlation coefficient.

A very rough[631] estimate suggests that less than 1 % of care enjoyed by the poor is covered. In this case, a zone hospital including most of the poor paradoxically benefits less of the FSI and also less in consumption of FSIs credit. There is even a positive correlation, this time with the number of households in the richest quintile. Despite extensive outreach efforts, the number of beneficiaries' remains low and, again, poorly correlated with the prevalence of poverty. 2 % of households have become poor in 2007 because of health expenditures and because there is no adequate mechanism to share disease risk and collateral costs.

6.3 Structure of External Financing by Source

The health sector is supported by contributions from many partners[632] including multilateral and bilateral, and various financing from for instance the Global Fund, the Global Alliance for Vaccines and Immunization (Global Alliance

630 Consumption credits are here correlated significantly at the release of 5 % with the number in the top quintile of wealth.

631 Given that 31 % of the population is considered poor and the average utilization of health services is 37 % (ie 0.37 each inhabitant per year contact health services), it is estimated that each year poor people should have about 800,000 contacts with the health system. Now the ISP has funded as 7,000 of these contacts in 2006.

632 http://www.aho.afro.who.int/profiles_information/index.php/Benin:Analytical_summary_-_Partnerships_for_health_development.

for Vaccines and Immunizations – GAVI), the American Presidential Malaria Initiative (PMI) and the African Development Bank. To these are added the traditional partners such as WHO, UNFPA, UNICEF, the World Bank and the Belgian Development Agency (BTC), NGOs and donors. The partnership structure differs depending on the partner and the health care field. The table below summarizes the partners and their field of operation.

Figure 10: Structure of External Financing by Source

Development partners	**Area of intervention**
Bilateral cooperation	
Swiss Cooperation	Accessibility of populations to basic health services and essential medicines.
French cooperation	Improving the organization of the health system.
Belgian Technical Cooperation	Institutional support to the development of health zones.
Netherlands	Improving the health of populations in the health zones
Canadian Cooperation	Fight against AIDS, Project AIDS III), Research on the health system and strengthening the management of solid waste.
US Agency for International Development (USAID)	Family planning, STI/HIV/AIDS, reducing maternal and infant mortality, fight against infectious diseases and community-based interventions.
Multilateral cooperation	
European Union (EU)	Blood safety, strengthening infrastructure and improving service quality.
World Bank	Budget support to the improvement of coverage in health infrastructure, health insurance, institutional support, reproductive health and fight against diseases (malaria, HIV/AIDS)
FAO	Food safety and quality, the fight against HIV/AIDS.
UNDP	The fight against poverty, good governance, the fight against HIV/AIDS, technology of infrastructure and communication.
UNFPA	Reduced maternal and infant morbidity and mortality, the advancement of women, gender and reproductive health, adolescent health, prevention against HIV/AIDS.
UNICEF	Promoting the health of children, girls' education, water and sanitation.
Nongovernmental organisations (NGOs)	
PSI, CARE International, Oxfam Quebec, Plan Benin, Catholic Relief (CRS), and Bavarian Red Cross Benin, Doctors Without Borders (MSF), French Association of Volunteers for Progress AFVP, Medical Care Development International (MCDI) and ROBS AMCES	Health promotion

Source: WHO, African Health Observatory in "Analytical summary - Partnerships for health development" September 15th 2016 at 12:00 AM under http://www.aho.afro.who.int/profiles_information/index.php/Benin:Analytical_summary_Partnerships_for_health_development.

External funding would help reduce the inequity of funding of the health system. This funding is about equally shared between vertical programs and support to health districts. Since the withdrawal of the European Union, there is no more support to the health system at national level. As in other countries, external funding allocated to certain diseases is not consistent with epidemiological weight.

All partners will meet at the call of leader in internal working meetings on an ad hoc basis and at varying intervals to strengthen national mechanisms. As in the table below, different mechanisms of consultation and work with variable frequency were set up following selected topics such as AIDS, malaria, etc. The fact is that each of them has an implication whose intensity is related to its specificity. The WHO, for example, "is heavily involved in coordinating partner activities that support the Government of Benin This commitment is manifested in the following way:

- a consultancy project with the Ministry of Health;
- active participation for coordinated action by the partners;
- active participation in the activities of United Nations agencies"[633].

7 Insurance for the Poor Particularly in Rural Areas

At the beginning until 2006-7, mutual's currently cover less than 1 % of Benin's population and probably not the poorest. It is still unchanged by 2011-13. Only 9 mutual[634] were functional in 1997 and they near by 80 in 2005 and steady increasing in the following years. Despite the diversity of experiences, all mutual covers about 70,000 people from the middle quintile up to the richest 20 % of the population. The low attractiveness of mutual seems not related to the amount to be paid, nor dues to their payment deadlines. The average monthly premium for a family is usually much lower, some 1,000 FCFA and never exceeds 2,000 FCFA. According to a study on "willingness to pay" in urban areas[635], "82 % of respondents would be willing to contribute a total of 1000 F/family/month and up 64 % of 2000F/family/month". Mutual are, how-

[633] Ibid., see also Development Process of the United Nations Framework Plan for development Assistance Framework (UNDAF 2008-2013).

[634] See Senelle 2005.

[635] See CEDA 2006.

ever, all limited by the low quality of care benefits and illegal practices of some health personal. To ensure that capacity of quality, most mutual's have established contracts with some health units, often private nonprofit. *Attempts coupling health insurance with microcredit are unconvincing*. The involvement of private insurers in health care in Benin is still very low. The consumers do not have this kind of insurance behavior common in Europe for instance. The importance of the informal sector (with its mistrust) in Benin, probably contributes to this phenomenon.

7.1 Health Insurance in Rural Areas

Health Insurance (HI) in rural area is in most of the Developing Countries unknown. Usually, people have only access to health care services by paying cash, the so-called "out-of-pocket-payment".

The miserable equipped and of poor quality estates and services in the poor countries make the available potential under-utilised. The problem of health care and health insurance turn around the question of finance and recovery. Until now, there are only a few schemes able to tackle and resolve this marasmus. A strategy of subvention user fees and of low subvention but qualitative insurance fee could be an alternative solution for the short term. A time schedule to establish an adequate scheme for all in the country is needed.

In countries such as Benin, Togo, Ghana, Nigeria and Senegal, the functioning scheme is community-based; a kind of enlargement of micro-finance system but administrated as non-profit mutual e.g. solidarity and collective pooling (Community-based Financing Schemes-CF) of health risks by the members in co-operation with hospitals in the neighbourhood. Depending on the development level of the concerned area, this scheme is formal or informal social security system.

There is a tremendous lack of information about health, about the state's institutional capacity and capability to design policies, which should aim at establishing, consolidating, sustaining and regulating the insurance sector. The lack of transparency, accountability, cohesion e.g. synergy between the ministries, professionalization and decentralisation do not easier the budgeting of the finance flows and sources for the health sector. Further to qualify and quantify the increasing demand and need for health care and insurance, their socio-

economical impacts on people, poverty and growth is a long way to be gone in poor countries. Public measures often do not reach the people in need.

7.2 The Scheme of Community-Based Health Insurance (CBHI)

The scheme of CBHI mostly appears in the nineties in Sub-Sahara Africa, especially in West Africa[636]. It was initiated almost by the NGOs and other charitable organisations. Usually, it operates in rural areas although some of the models are based in the cities.

It is here so easy to write about the positive effects and genuine operations of the CBHI. In fact, the reality of its existence is very difficult and differs a little bit in the rural area. Definitively none could have a doubt about the positive effects of the CBHI on health and social security of poor people. The only problem is the availability of methodological data and information, which will help to demonstrate, to underline this assumption. Over a decade, the existence of the CBHI is already a prof for its acceptance, viability, increasing membership and sustainability. The question is still how do they achieve these goals? This question brings us back to the design, the structures, the marketing and the management of the CBHI within its environment.

Until the creation and the implementation of the CBHI, the government has the monopoly on health care. Therefore, some amendments of the laws, legislative and political framework were prior required to promote the CBHI. Until now, no research has ever found out the critical or optimal size of a CBHI. The size differs according to the number of members, to the target population, to the implementation area, to the nature of risk pooling and not at least depends on the capacity and capability of the management.

Once against, data helping for a methodological research on the size are not available, if they do so, they are not reliable. Premium is the greatest challenge to user fee. As long as the user fee is still high, premium will still be the best alternative and the basic reason to implement CBHI.

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[636] Senegal, Mali, Ivory Coast, Ghana, Benin, Burkina Faso, Niger, Nigeria, Cameroon, later a tiny one in Benin.

7.2.1 Conceptual and Cultural Factors

If the informal safety net is strong enough in the locality, solidarity between people will become a hard hurdle for the scheme. People will be unwilling to pay premium for a later use of services and will be far less ready to take care of risk pooling/sharing. At the same time, the readiness and willingness is expressive higher for paying premium and sharing risks for homogeneous group. The concepts of illness in rural Benin for instance does not allow saving money to cope to eventual illness, unless one is "wishing oneself the disease"[637]. The most important point is to explain to people first, what is an insurance and second, why they need it. These aspects of CBHI in the rural area are very important due to the participation of the people themselves.

7.2.2 Culture, Family and Network

The structure and the composition of a household in Sub-Sahara Africa are very impressive and hiding very important differences. A household in such a country is not the microcosmic one of the OECD countries, although the appearance can foul some people. Some differences can be a source of a Shakespearian drama according to the culture and locality.

Single parent, compound headed by an elderly lady or a man, polygamous man, compound of relatives or accommodated poorer of the family, three generations household, etc. added to the children, some three to ten per woman within the households is not especial. These households above have each its own economic organisation, resource allocation as well as different saving patterns. Under these differences, women have a sound tactical process. Most of the women in West Africa belong to at least one rotating saving association. They also hide their saving from their partners[638].

It is with that reserves that women can most of the time join the end of the month, pay the school fees and health care of the family. They usually do not let their partners "misallocate" or misuse their reserves. Only this small tontine has helped some women to build up their own house in Benin and Togo. The

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637 Quoted in, "The Emerging Movement of Community Based Health Insurance in Sub-Saharan Africa: Experiences and Lessons Learned" by Doris Wiesmann/Johannes Jütting, in Afrika Spectrum 35 (2000), p. 15.

638 Field research and interviews in Lome/Togo and Cotonou/Benin both biggest Markets, Fall 2003 and, "Culture, Family Ties and the Saving Hand" by Juan de Laiglesia and Christian Morrisson,OECD Development Centre, Policy Insights, no. 35, Deceember 2006, p. 1.

amount accumulate is enormous but never been recorded in the GDP of the countries. This tie to the family is the source of high rate saving and help the capital accumulation through the children. Poor people can also save. It is just a matter of know-how. This saving appears for instance at marriage as a bride price[639] in patriarchal system or for men in India. Furthermore, these practices are high disincentives to invest. Nowadays, if the pressure of the informal safety net and/or redistribution of wealth is too high, men and women prefer to hide their assets into illiquid and/or disperse randomly them, make them less visible. These forms of the households and what is going on behind and beyond such a household were almost ignored in the policy and programme design in and for the poor countries.

7.2.3 Demand of CBHI

This insurance covers only its members[640]. Membership that is voluntary demonstrate the readiness of people to pay the premium for readily get treatment in case of illness without supplement[641] financial barriers to access the health facilities or delay in treatment.

This process has a positive effect on the household members by coping to stress of lost and cost expensiveness of treatment. People gain confidence in the scheme and bring other to join it in a short time run.

7.2.4 Supply of CBHI

In rural Africa, the facilities have to challenge a well-established view that traditional medicine is better than modern medicine. This assumption is so far right, because all the way long to the implementation of the CBHI, people rely on the traditional therapy, which, in some case, is more potent as the modern medicine[642]. Nevertheless, it is important for the scheme to convince people to use and to test the quality of the facilities in the aim to increase membership, out of which they can purchase more drugs and equipments hence to realise economies of scale in their service production.

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639 See "Culture, Family Ties and the Saving Hand" by Juan de Laiglesia and Christian Morrisson,OECD Development Centre, Policy Insights, no. 35, Deceember 2006, p. 2 (the amount is for instance the same as GDP per capita in Uganda).

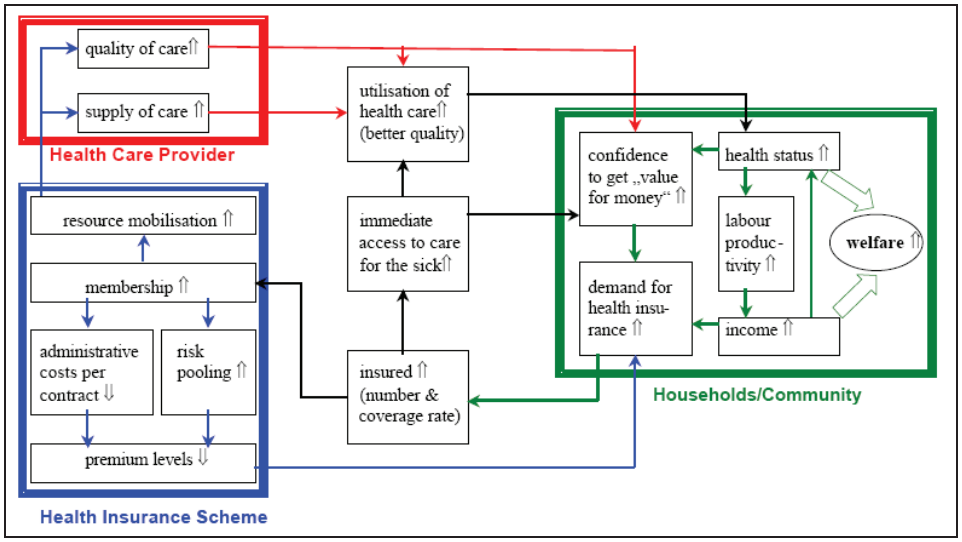
640 Members are either the breadwinner of the household, the whole family.

641 For instance by selling productive assets.

642 See the problem of gene and bio-piracy in the poor countries.

A part of the benefit due to these economies of scale will be reallocated to lower the premium for the membership and to market preventive care and healthy behaviour[643] as in the lesson of North Department in Benin/West Africa.

Figure 11: Dynamic Interactions between Supply and Demand for Health Insurance and Health Care



Source: "The Emerging Movement of Community Based Health Insurance in Sub-Saharan Africa: Experiences and Lessons Learned" by Doris Wiesmann/Johannes Jütting, in Afrika Spectrum 35 (2000), p. 4.

7.2.5 Promotion of Equity

The first question to analyse is "who may have really a benefit of the free education and health care provision destined to the poor?". The strategy of poverty reduction tends to misuse the criterion for free services against the poor people with the background to decrease their number significantly without a sensible outcomes or effect on poverty. A deep tackling survey is needed for a sample (children and/or adults) of these people living under the so-called poverty line in the case of education-health-mortality rates-nutrition (poverty line in food consumption).

This information is centred on poverty reduction of specific group and allows a control or a verification of the interaction between poverty, education and health for policymakers. The expenditure in health and education are often a kind of confusion in the poor countries. The whole strategy is from the beginning biased by the method of approach and calculation.

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643 See Garba, M.; Cyr, V. in "Présentation de mutuelles du Sud Borgou et Zou Nord au Bénin". Presented at the Seminaire-Atélier de CIDEF "Les Mutuelles de Santé en Afrique: Concept Importé ou Réalité Émergente? Experiences et Perspectives", Paris, May 1998.

It is supposed that supply will necessary create demand. In the same logic, education and health centres all over the country are made immediately mandatory without available finance and institutional coherency and synergy. Moreover, if the financial resource is budgeted, it is confronted with administrative mediocrity and incompetence, corruption and crony economy. "For these reasons, services that are "self-selecting" constitute a particularly effective way of increasing the redistributive effect of health and education spending"[644].

The quality and equipment of the services are very different and discouraging between rural and urban areas and hidden inequality. It is high in urban rich quarter and decreasing for the rest neighbourhoods until lowest in the smallest village. The next worsening problem is that of recruitment. It is extremely rare to find qualified people ready to engage their potential in rural areas, unless one provides them with higher standards and salaries than elsewhere added to a carrier promotion later in a big city.

Therefore, the personal for the services in rural areas are poorly qualified with mediocre equipment.

7.3 Structure of the Optimized Scheme

Efficiency, affordability, facilitated access and quality of services are the content of the package. The cost of this package underlines the level of the premium that in turn is a guaranty for the sustainability and the viability of the scheme. The design of the scheme must aim to reach a large proportion of the population. Nevertheless, social exclusion will persist, no matter the management has done to lower the access barriers.

The sustainability and the viability of the scheme also depend on the transparency and accountability of the care providers. They must carefully take into account the adequacy of the justified prescription of treatment that they apply to the insured patients. Over a genuine safeguard, the scheme can turn down to moral hazard, clientelism and corruption by the doctors on the one hand and on the other, the "free riders"[645].

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644 See "Health, Education and Poverty Reduction", by Christian Morrison, OECD PUBLICATIONS, POLICY BRIEF no. 19, Paris 2002, p. 22.

645 The free riders are somehow relatives of the insured, of the doctors, officers of the CBHI or of the personal of the hospital. They use the card of someone else to access to health care. It is not a practice only in poor countries but in Developed Countries such as in Ger-

Another technique of control is the pre-shake of the insured, to identify the potential of illness risk that the patients bring in the scheme. It is an obvious adverse selection already applied in some U.S. Insurance companies. The voluntary aspect of appurtenance to the scheme should not able the way for jeopardising behaviour for the scheme. Nevertheless, a scale of premium could solve the problem at the benefit of all: lower risk pays lower and inverse for others. Once again the scheme is confronted with the question of affordability and access to insurance in the case of high[646]-risk people. To cope to this problem, the whole household/family can join the scheme after a period of latency. Anyway, the negative effects of adverse selection on the scheme are almost irrelevant but very hard for the poorest of the population.

Epidemics and/or pandemic are the next challenge for the scheme. No matter its size, such disasters use to seriously deplete the finance of the CBHI. To counteract cost escalation out of these shocks (malaria, diarrhoea, Cholera, etc.), the scheme is obliged to co-operate in a pool of public-private partnership in form of reinsurance[647] contracts with private insurance companies or an agreement with public institutions.

7.3.1 Decentralisation

The viability and the sustainability of a scheme depend on its acceptance by people and their participation in the decision-making as prior in the design of the scheme. People can identify themselves with the scheme. As already noticed by ethnical and cultural homogeneous population, the level of "corporate identity" by them is very high and lead to adequate use and protection of the scheme. This is in turn the best vector[648] for health education, prevention, and healthy behaviours for the members and for keeping the premium low.

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many. By dealing so with moral hazard, the rate of utilisation by insured can overcross 150 %. Effects that can rapidly jeopardise the financial existence of the scheme.

646 See Musau, S. in, "Community-Based Health Insurance: Experience and Lessons Learned from East Africa" by Technical Report no. 34 for Partnerships for Health Reform Project, Abt Associates Inc., Bethesda, MD. 1999.

647 See Jütting, J. in, "Strengthening Social Security Systems in Rural Areas of Developing Countries", Discussion Paper on Development Policy no. 9, of the ZEF/*The Centre for Development Research in Bonn/Germany,* 1999,

648 See Garba, M.; Cyr, V. in "Présentation de mutuelles du Sud Borgou et Zou Nord au Bénin". Paper presented at the Seminaire-Atélier de CIDEF – "Les Mutuelles de Santé en Afrique: Concept Importé ou Réalité Émergente? Experiences et Perspectives", Paris, May 1998.

Decentralisation is not only a transfer of responsibilities but also a delegation of power of decision-making and ruling by law. In the case of health, decentralisation[649] holds officials and workers accountable for improving performance, outputs and outcomes at the benefits and advantages of the poor.

Decentralisation of health in a poor country has usually such a perverse effect, that shifts the burden to local entities without required fund, but revenue must be transferred to the central. Hence, local government has no incentive to invest into health care structures.

On the other hand, his policy leads also to significantly drop the preventive coverage in preventive medicine. Giving local authorities fiscal and financial incentives to invest in health care services will certainly bring the expected outputs and outcomes. The only positive and successful new from the decentralisation in the poor countries is the introduction of insurance in different schemes. Insurance becomes the substitute for the so-called "out-of-pocket-payment". The sustainability of the success must be accompanied with required fund.

7.3.2 Household and Community Profile

Household and community demanding health insurance have prior socio-economic and cultural characteristics. As we have seen in the part Nutrition and following, one can include: the characteristics of the parents especially of the mothers, the structure of the household (living or not in compound), poverty level of the household and of the community, the cultural field, potential of the household and of the community, etc. The implementation of a CF depends on the outcome of analysis of the profiles. Household and community can only afford to be member of a scheme according to their revenues/incomes and the prevailing concepts of illness and cultural habits in dealing with risks. If the scheme takes place in an ethnical homogeneous environment, the solidarity and mutuality of people is higher than ever.

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649 See "Decentralisation in Asian Health Sectors: Friend or Foe?" by Hiroko Uchimura and Johannes Jütting, in OECD Policy Insights, no. 18, May 2006, p. 1.

7.4 Sustainable Pro-Poor Health Insurance

Community risk sharing in health care lies on the exams of the interrelations between investment in health sector, poverty reduction and economic growth based on household surveys. There are some corner stones helping to sustain Health Insurance in poor countries. This strategy depends on collateral policies such as nutrition, education, energy, water and sanitation and contents a qualitative, accessible and affordable health and personal care services. This strategy requires the cohesion and the synergy of almost all ministries of the government, a high organisational capacity and know-how to allocate resource for this purpose. The incapacity of the public sector to provide and to secure the national health status of the nation is out of discussion.

Government are able to design genuine reforms and legal and regulated framework without discrimination (e.g. gender) to facilitate the access to an equitable health financing systems over pre-payment.

7.4.1 Impacts of Education and Health Spending

Education and health produce the same outputs and outcomes for the human capital. A primary education in read-write-arithmetic leads on the one hand to a double better-paid job than illiterate person. On the other hand, educated people can better understand the use and practice of health prevention, health care services, family planning and resource allocation within a household.

These expenditures into human capital are in the line of poverty reduction in medium and long term sizable, especially by the children. Nevertheless, the performance of the pupils and among them (children or adult) has a high variation according to time of attainment (number of hours per week), the kind of school (private elitist, public poor equipped and overcrowded, dual system as in Germany or handcraft), the family's standards or poverty level (meals per day, information medium such as newspaper, radio and TV, school material). The importance of a standardisation of the national education is heir with underlined, at least for the primary education. Furthermore, there is a need to identify the real parameters for the analysis and case study for the design of programmes, reforms and policies.

The record of the pupils should be done according to their performance e.g. acquired basic knowledge in fixed time interval and socio-economic status of

the family. With these data of the survey, it will be methodological to calculate the outcomes of primary education on poverty reduction. However, the data were collected, in the case of Indonesia[650], the access to health care and medical treatment have a positive effect on income and the income decreases with the lower rate of visits to health centres. The same methods should be used for health because, for health as for education, the temptation to have optimistic view and to overestimate the real benefit and outcomes is too high. It is obvious that "education has an impact on health and vice versa[651], making the overall effect on gains greater than the sum of the direct effects of these two factors"[652].

The combine interaction[653] and work of health and education is a challenge for reformers and decision-makers, because children at first bear the burden of the positive or negative interaction between health and education.

7.4.2 Social Protection and Participation

Most of the models of Community Financing Schemes (CF) are from the NGOs, hence voluntary and non-profit schemes. Their staffs are perfectly trained in these issues and co-operate with entities[654], which have strong and valuated experience in finance, social protection and claims handling.

Participation of the members in community decision-making will cope to moral hazard, transaction costs, and agency as to abusive adverse selection. It is a form of corporate identity where members identify themselves jealously with their schemes and take care for its good run.

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650 See "Health, Education and Poverty Reduction", by Christian Morrison, OECD PUBLICATIONS, POLICY BRIEF no. 19, Paris 2002, p. 9.

651 In the same way, health status generates externalities for education, as school performance depends in part on a child's health. See also, Martorell, R. and J.-P. Habicht in, "Growth in Early Childhood in Developing Countries", published in, "Human Growth: A Comprehensive Treaty, vol. 3: Methodology, Ecological, Genetic and Nutritional Effects on Growth", by Plenum Pub., New York, 1986.

652 See "Health, Education and Poverty Reduction", by Christian Morrison, OECD PUBLICATIONS, POLICY BRIEF no. 19, Paris 2002, p. 9.

653 See table 2 in, "Health, Education and Poverty Reduction", by Christian Morrison, OECD PUBLICATIONS, POLICY BRIEF no. 19, Paris 2002, p. 9.

654 See: http://www.sewa.org and http://www.grameen-info.org.

7.4.3 Marketing and Management of the Scheme

The scheme is to be considerate as a company. It produces health services. The manager run the scheme not only as a manager and accountant (financial control, investment, member record, book-keeping) but he/she is also the marketer of the scheme by the negotiations with outsiders such as care providers (hospitals), drugstores, banks, public and private institutions. The manager monitors the campaign of health prevention and healthy behaviours in the aim to reduce the expenditure on illness of people. The chief executive officer (CEO) of the scheme must be a manager and marketer. Any kind of abuse by the manager will break the confidence into the scheme.

People all over the world have a good knowledge of the rights and they can evaluate what a scheme provides them e.g. the value of the services for money. The management has to cope to the complaints and deal rapidly and transparently with claims. The staffs of hospital toward insured patient and non-insured have to be correctly educated to avoid discrimination and rude behaviours.

It is not an abusive and police control of the insured but a system to deal with misunderstanding and the level of illness. It is not every pain or sickness that has to be cured in hospital. Some of these can be cured at the village or local medical station. The costs in a hospital are higher than in a local dispensary. The referral system is cost controlling and saving system at the profit of the insured[655].

7.4.4 Flexibility of the Payment of the Premium

The payment of the premium in one is only affordable by the wealthier. The alternative for the others could be the progressive payment "in a tontine before joining a pre-payment scheme"[656] as implemented in Rwanda. Religious, Association and charitable organisations collect gifts in cash as in material in the aim to support excluded people or their community poorest members. These are only few modalities of payment sustaining Health Insurance for all.

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655 See Creese, A.; Bennett, S. in, "Rural Risk-Sharing Strategies" by Schieber, G.(ed.), presented for, "Innovations in Health Care Financing", at the World Bank Conference, March 10-11, 1997, Washington, D.C.

656 See "Health insurance for the rural poor?" by Dr. Johannes Jütting (Senior Fellow at ZEF Bonn-Germany), p. 3.

7.5 Consistency of the Scheme

Consistency appeals for timing and sequence, co-operation, cohesion, synergy and coordination between all the actors and initiatives (official and non-official).

7.5.1 The Initiatives

The rise of health and education level for the poor implies automatically the rise of their income. As we have seen in chapter nutrition, the influence of the nutrition on health is out of discussion. But the capability to work, to earn a level of wage is also high influenced by the health status, which in turn is conditioned by the education level and vice versa. Under this assumption, if the initiatives do not take into account the simultaneous effects and interactions of health and education on each other; they will otherwise begin with failures and inconsistency in the design and implementation. The consideration of adequate health and education as one element integrated with child-mother sets of measure enable poor people to raise their income.

7.5.2 The Actors

Whatever the actors are or are targeting, they should rather they must build up a pool of coordinated operations. This pool will provide the personal for a bureaucracy and management deeply attached to the local services und should work directly with the family in need "on a regular basis to help them with health, education employment and housing"[657] and short term nutrition. At the national level, with the democratisation and freedom, some groups of interest have formed some powerful unions asking or striking for more resources regardless to the effective needs and demands of the poor families. The reforms and policies in this context should make clear to these interest groups that, it is not the supply side but the demand side which must be considerate to improve and to increase the quality of the services, the school and health centres, individual productivity and the balance between resources and outcomes.

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[657] See "Health, Education and Poverty Reduction", by Christian Morrison, OECD PUBLICATIONS, POLICY BRIEF no. 19, Paris 2002, p. 31.

7.5.3 Health Care Providers such as Hospital

The quality of the hospital care services is out of doubt and high, a sine qua non condition to sustainability, co-operation and constancy in the payment of premium. The hospital co-operating with the CF is bearing a great responsibility, because their decisions influence the demand for CF and on the financial balance of the CF itself. The hospital can even take in charge, at own account a part of the costs of the scheme.

7.5.4 Timing and Sequence

The poverty trap is the transmission of poverty from one generation to the next, and it lays down the dependency relation between mother and children. To break up this degutting cycle of misery, it is sine qua non to identify the factors interacting in many ways that dooms the children to lifelong poverty.

Commonly, the factors are in combination of illiteracy, malnutrition, poor health, poor family structures, lack of family planning, lack of property, lack of income opportunities and difficulty to access health and education services.

In the first term, the identification of this combination will help in second term to design an adequate policy and reform of long run targeting the break through in health and education for the poor.

In the second term, the design will content a dynamic level of spending over the long run according to the population and resource fluctuations. As long as such consideration and careful attention will not be applied, failures will be made, results will be biased, resources and time will be lost.

7.6 Universal Insurance System[658] in Benin

In 2008, private health expenditure amounted to approximately 47.2 % of total household expenditure which 75 % goes to purchases of pharmaceuticals. To reduce poverty, the financial burden and improve the living standards of the population, the government is obliged to support the health sector. Existing hedging structures, the lack of a coherent strategy for health financing lead to a fragmentation of the funding system, so finally to inefficient and inequitable funding and access to health services. We can add the weak structures of allocation of resources and of acquisition system of health services.

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[658] See http://www.who.int/health_financing/documents/oasis_f_10-benin.pdf.

In 2010, social protection devices identified are:

- Health Fund indigent (FSI),
- Free caesarean offered by the National Agency for the Free Caesarean,
- Plan 4/5th (special scheme for active official),
- National Pensioners Fund of Benin,
- National Fund for Social Security (CNSS) covers employees in the private sector for family benefits and occupational hazards.

We should add:

- 180 mutual for urban and rural community health operating in the informal sector,
- 4 mutual for social security in each department/county and budgeted at 151 million FCFA by the government and finally,
- 6 private insurance companies directly covering 45,000 workers and their families.

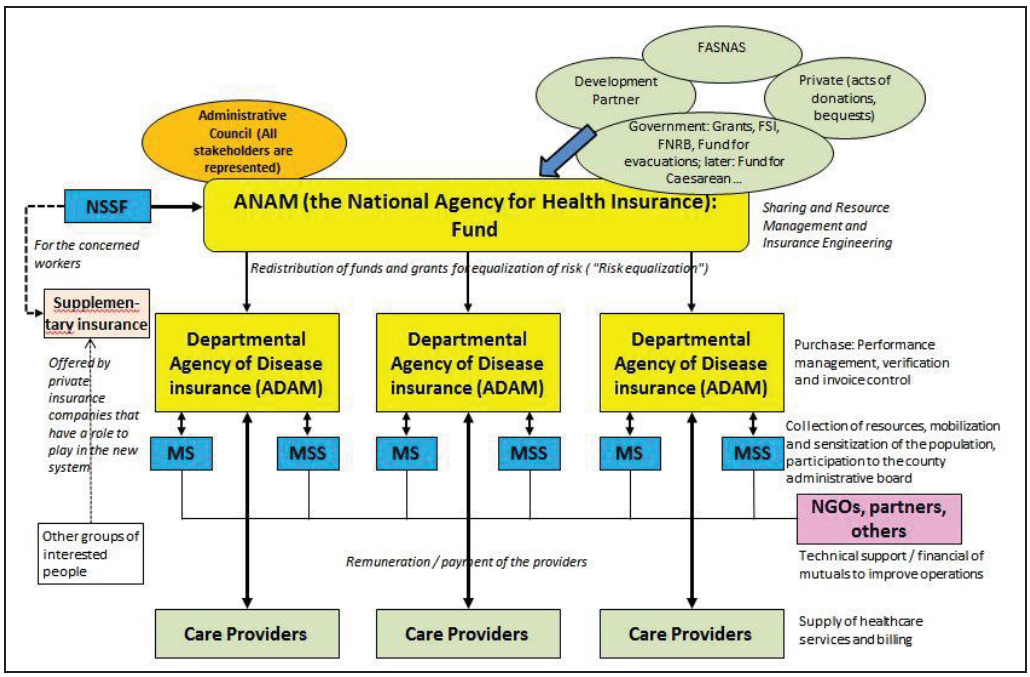
The design of a universal health insurance for Benin is not a long process. The reason is that there are many successful models for populations 7-10 times higher than that of Benin. These models can be adapted to the context of Benin. The model proposed in the technical report by WHO provides a National Found. This Found, according to the necessities will hold directly or delegate this function to other bodies for the pooling of collected resources. To this end, the report proposed an action plan with a model called Regime Assurance Maladie Universelle (RAMU figure 12 below) which will be supported by the National Agency of the Health Insurance (ANAM) and its decentralized structures of the Departmental Agencies the Health Insurance (ADAM). This agency will take over the management of funds whereas RAMU will collect resources, pooling them and the purchase of required services.

Note that the system proposed by the technical report is a compromise. The report comes in itself to write that "the alternative would be […] a system with multiple funds, require a risk preparedness mechanism that involves all first of very high administrative costs, without the advantage of a competition between different devices. The establishment of criteria and the operation of a complex mechanism is a technical challenge with all the risks it has shortcomings and

that equalization functions of risk and redistribution to secure funding and equitable access are not performed optimally"[659].

By observing the table after the chart below, we can observe detailed results on how people are insured in Benin. On the one side, they are distributed according to residence areas, level of education, and by quintile of "well-being" and gender. On the other side, they are distributed in social protection devices i.e. social security, health mutual/community insurance, private insurance, none, employer provided insurance.

Figure 12: Universal Health Insurance System (RAMU)



Source: WHO, Health Financing Document on Benin August 13th 2016 at 15:35 PM under http://www.who.int/health_financing/documents/oasis_f_10-benin.pdf.

The results are very discriminative. The closer one lives to a big city, the higher the level of education and the quintile, the better one is insured, inversely proportional. Altogether, nearby the whole population is not covered by insurance, 98 % of women and 97 % of men 15-49 years are not covered regardless of the residence areas, the level of instruction and the appurtenance to a quintile.

659 Ibid.

Table 35: Insured Women and Men 15-64[660]

Socio-demographic Characteristics	Social Secu-rity	Employer provided Insurance	Health mutual /community Insurance	private Insur-ance	None	Real number of insured
WOMEN						
Residence Areas						
Cotonou	1,0	2,3	0,7	1,5	94,9	2 633
Other Cities	0,5	0,8	0,5	0,3	98,4	5 078
Total Urban	0,6	1,3	0,6	0,7	97,2	7 711
Rural	0,2	0,2	0,2	0,1	99,4	8 888
Level of Education						
None	0,2	0,2	0,2	0,1	99,4	9 879
Primary	0,3	0,5	0,2	0,2	99,0	2 906
Secondary I	0,5	0,8	0,5	0,6	97,9	2 505
Second. II or plus	2,3	4,8	1,5	2,5	90,0	1 309
Quintile of "well-being"						
First lowest	0,1	0,1	0,3	0,0	99,7	2 795
Second	0,1	0,1	0,1	0,1	99,7	3 017
Middle	0,2	0,1	0,1	0,1	99,6	3 132
Fourth level	0,3	0,4	0,2	0,2	99,1	3 559
Richest	1,2	2,3	0,9	1,2	95,0	4 096
Total	**0,4**	**0,7**	**0,4**	**0,4**	**98,4**	**16 599**
MEN						
Residence Areas						
Cotonou	2,3	4,3	0,5	0,8	93,1	722
Other Cities	0,8	1,3	0,8	0,5	96,5	1 376
Total Urban	1,3	2,3	0,7	0,6	95,4	2 098
Rural	0,5	0,2	0,4	0,1	98,9	2 335
Level of Education						
None	0,1	0,1	0,3	0,1	99,4	1 460
Primary	0,1	0,5	0,3	0,1	99,2	1 059
Secondary I	1,5	0,4	1,0	0,4	96,9	1 032
Second. II or plus	2,6	4,9	0,8	0,9	91,6	882
Quintile of "well-being"						
First lowest	0,0	0,0	0,5	0,1	99,5	686
Second	0,0	0,0	0,2	0,2	99,7	725
Middle	0,4	0,2	0,4	0,0	99,0	847
Fourth level	0,6	0,8	0,1	0,0	98,6	965
Richest	2,6	3,7	1,3	1,1	92,2	1 210
Total 15-49	**0,9**	**1,2**	**0,6**	**0,3**	**97,2**	**4 433**
Total 50-64	**1,8**	**2,1**	**0,3**	**0,5**	**95,8**	**747**
Total 15-64	**1,0**	**1,4**	**0,5**	**0,4**	**97,0**	**5 180**

Source: Mechanism of use of Indigent Fund, DRFM, July 2005.

[660] See Tableau 3.8 Assurance médicale in "Enquête Démographique et de Santé (EDSB-IV) 2011-2012", Cotonou, Bénin, Octobre 2013, p. 79.

8 Policy and Outcome

8.1 Poverty and Population Growth Reduction and Health

According to INSAE, Benin's population in 2006 was 7,840,000 inhabitants, whereas the estimates of UN are rather close to 9.3 million. This population increases rapidly up to 10,3 million in 2013 and 11190206 habitants in 2016[661]. This population[662] is largely concentrated along the coast because of the facilities of access to employment and income generating activities. This demographic burden will oblige Benin to increase significantly its investment in human capital and to radically improve the efficiency of current arrangements and dispositive. Compared[663] to other countries in West Africa, Benin is characterized by a relatively high population density and urbanization near the average. In SSA, on urbanization, Benin is ranking the third in the density per square kilometer but at second with the percentage of rural population behind Guinea Bissau.

Considering this demographic pressure on the household, by no mean, can a poor household manage to cope to poverty and by the way increase the number of people dependant to the household. For a good management, the household must decrease severely the number of its members.

If already at the level of the household there is huge problem of management, at the level of government, such problem becomes sever for the budget. Therefore, on 2nd May 1996, Benin has introduced a strategy called: "DEPOLIPO". It is the demographic management in the main intention of improving the level and quality of life of citizens. It is also based on the links between the dynamics of demographic variables and socio-economic development in economic. Social development plans and programs have become indisputable. It is based on sixteen objectives that are the basis of all development strategies in all socio-economic areas in Benin. Among others topics, we can mention following:

"• ensure a quality education for all Beninese citizens;

- increase the life expectancy of 54 years in 1992 to 65 in the year 2016;
- promote responsible fertility;

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661 See http://worldpopulationreview.com/countries/benin-population/.

662 See the table mentioned: Urbanization and density in various countries in West Africa in the Report: World Development 2008 for instance.

663 See the table mentioned: Natural growth rate and fertility in various countries of West Africa in the Report: World Development 2008 for instance.

- ensure that everyone, at any time and in any place, sufficient nutrition, healthy and capable of ensuring well-being;
- promote healthy living, protection and respect for the environment;
- create the conditions for full participation of women in the development process and the enjoyment of the fruits resulting there from;
- adapt the implementation of the population policy to regional specificities;
- incorporate elements of the population policy in development plans and programs;
- mobilize the people of Benin around the socio-economic and demographic problems of the country;
- improve knowledge in the socio-economic and demographic areas of the country."[664]

The effect on *family planning*[665] says that 14 % of women aged 15-49 use a method of contraception, 9 % a modern method and 5 % a traditional method. Modern contraception increased from 7 to 9 % for married women whereas it is very low in rural areas.

On *health of reproduction*[666], the proportion of women at childbirth assisted by a trained health provider/staff increased from 74 % in 2006 to 81 % in 2011-2012. However, there was no significant change in the prenatal care: 87 % in 2001 to 88 % in 2006 and 86 % in 2011-2012. In postnatal care, 51 % of women have benefited within 48 hours against 6 % within 3-41 days.

The graphic below presents the conceptual framework with its relevant elements to analyse the nutritional status in urban households. Although the households are confronted with stress and heavy difficulties, parents are able to give a good nutrition and care to their children. This care is a very important psychological and physical determinant for children and it also makes vulnerability for children as for the member of the household very difficult to define. The need to analyse food security, health, and nutritional status in light of the resources and behaviours affecting care is urgent[667].

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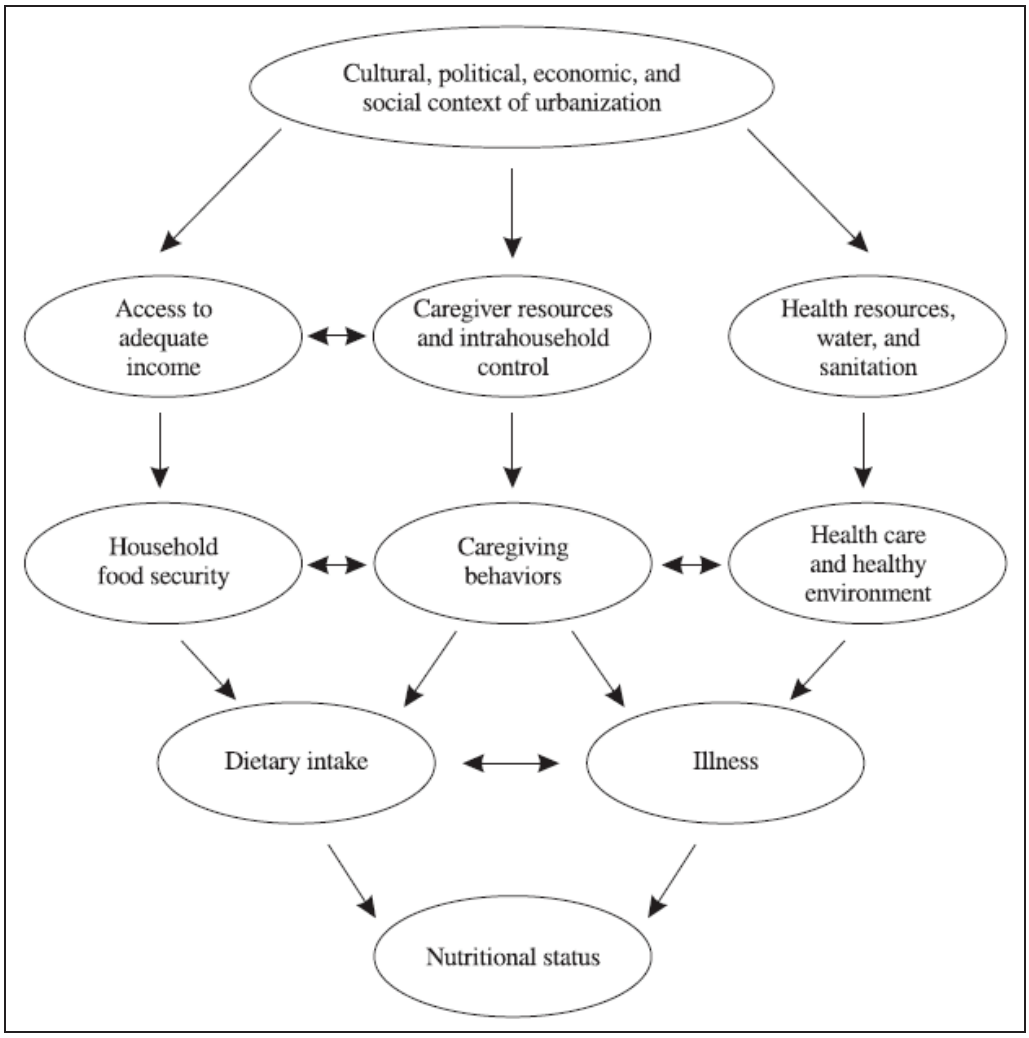
664 See: "Enquête Démographique et de Santé (EDSB-IV) 2011-2012".

665 See PLANIFICATION FAMILIALE, by *Elise Ahovey et Rémy Hounguevou*. in "Enquete Démographique et de Santé, (EDSB-IV) 2011-2012"

666 See SANTÉ DE LA REPRODUCTION by *Mêmounath Bissiriou Zounon, Alphonse Guèdèmè, and Jeannine Houeha,* in "Enquete Démographique et de Santé, (EDSB-IV) 2011-2012".

667 See "Urban Livelihoods and Food and Nutrition Security in Greater Accra, Ghana", p. 11.

Figure 13: Conceptual Framework of the Nutritional Status in Urban Households



Source: Adapted from UNICEF 1990.

The only and genuine way for the government to cope to malnutrition is the investment policy in production, education and health. We have found that an educated woman is able to give the basic care to her children. So then the enrolment of girls at the school will be the target for their adult period/time. In their adult time, the women listening to radio, reading papers or watching TV understand easily the transmitted message about child care, contraception[668], nutrition, health and so on. Added to education, a coherent policy of information and a well-designed information program targeting mothers is unavoidable. The cost-use analysis of this last point is cheaper and faster. The existence of a combined social and medical station will further contribute to the well being of mother and children.

[668] It increases the time-space between births, so then reduces the number of children.

Policy designers have to pay attention to prophylactic dispositions that will not only help to decrease infant mortality but also for the whole population. Let take the seasonal malaria epidemic during the raining periods in Benin. By distributing mosquito's nets, the parents of the child are also prevented to get seek with malaria. The same procedure appears with vaccines and micronutrients.

About child health, this part has helped to clarify: (i) the main causes of infant mortality and morbidity, (ii) interventions with high impact on these causes of mortality and (iii) the components of health system are the major bottlenecks to the widespread use of these high impact interventions. Benin has prepared in 2006 and officially adopted in 2007 a policy of reducing mortality to upgrade maternal and neonatal health. The policy specifically targets three potential barriers to improve maternal and newborn health, namely (i) the availability of SONUB and SONUC, (ii) geographical accessibility (i.e. strengthening the referential system) and financial (i.e. establishment of an innovative funding for demand) of such services and (iii) the quality of care (i.e. training and drug supply). In addition, this policy identifies that the zones hospital must receive support in priority. The implementation of this policy began in 2008 with support from UNICEF, UNFPA and USAID.

Breastfeeding until 1 year in SSA is common practice. It is for the mother and the family budget the cheapest meal for children. By poor people it takes sometime more than 1 year and it has the role of complement for the scarce "solid meal" or instead to buy water. In another order, along the West Coast in Africa, from Nigeria to Ghana over Benin and Togo, it is not unusual within a family compound, to see another woman breastfeeding a child[669] at the same age as the own one; when its mother is not "available". Such compounds are mostly headed by an aged woman and members are more or less relatives.

Other community activities exist for malaria and the health of young children, but they are implemented in a relatively ad hoc and/or without adequate integration. For example, the National Program of Fight against Malaria was formed in 2003 with more than 55,000 women in the management of malaria.

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[669] A man calling another woman, "mamavi" which means, "little mom" is saying that he grew up in such compound under the above mentioned relation. He ought to this woman the same respect and duty as to own mother because, he could not know, who has breastfeeding him.

Similarly, the Directorate of Family Health organizes campaigns to promote breastfeeding. In total, Community actions in Benin remain fairly underdeveloped, outside support for certain very specific diseases (e.g. Guinea worm). Each program or leadership funds and organizes community activities. Besides the lack of integration and the irregularity of Community activities, some activities such as nutrition are relatively neglected by lack of funding. This deficiency is particularly damaging as many interventions with high impact on child mortality can be established in community.

8.2 The Responsive Policies of the Government

It should be noted that this chapter was conducted with the available information at the Ministry of Health and from some PTFs (called technical and financial partners World bank, WHO, etc.) and from the survey of INSAE in cooperation with ICF International. Apart from a study on the governance capacity of health personal, no better primary data could be collected.

This is an opportunity to further analyze the constraints[670] in the health system, consistent with the new strategy on Health, Nutrition and Population Management. This effort relates more specifically to some themes such as governance, private sector involvement and alignment of partners' efforts (PTFs) in Benin. Several guidelines have emerged stronger from this discussion, particularly in the area of governance of the health system and insurance. We will near the Health Insurance for the poor. Than explain the measures to increase the effectiveness for a pro-poor scheme as the discussion on its sustainability and its consistency.

Generally, we can explain these health outcomes over two aspects: (i) the practices of communities and households, particularly in terms of nutrition and hygiene habits, and (ii) the national health system.

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[670] See World Bank in „Benin - Health, Nutrition and Population : Health and Poverty Analytical Report" by Open Knowledge Repository, Washington, DC, 16th November 2016 at 5:45 PM under https://openknowledge.worldbank.org/handle/10986/3207 and also World Bank in „Republic of Benin - Health, nutrition and population health & poverty analytical report (English)", Africa Region, Human Development & Ministry of Health, Republic of Benin, May 2009, Report No. AAA51 – BJ, 17th November 2016 at 9:05 AM under http://documents.worldbank.org/curated/en/247381468212069765/pdf/AAA510ENGLISH00w020090FINAL0ENGLISH.pdf

Indeed, in Benin, it remains two major problems in the case of children[671] to be solved: (i) growth retardation and (ii) anemia i.e. gaps in breastfeeding and micronutrients zinc and iron, including the case of pregnant women. 17 % of infant mortality is explained by diarrhea strongly related to mother-education, hygiene and quality of sanitation. Furthermore, the situation in the rural area has deteriorated significantly:

The access to improved[672] water source especially in rural areas was at 71.1 % in 2012, whereas the rate of safe drinking water falls from 28 % to 14 % between 2001 and 2006. The none-improved source of water was at 13.4 % in urban and 27.9 % in rural areas. As long as there will be a source of none-improved drinking water and sanitation for the population, the government will face a huge amount of different diseases, which in turn imply enormous capital for treatment. Currently, irregular Community Activities of low integration are nearly focused on certain specific pathologies (i.e. Guinea worm) and immunization. Other activities are relatively neglected (i.e. nutrition, sanitation, etc.) by the lack of support from a program or a head office which could finance them. The propagation of Guinea worm is tied to decent sanitation.The focus on specific pathology such as this worm and not with the improvement of sanitation is a big error that a program can make.

8.2.1 Problem of Supply vs. Demand of Services by the Design of Policy

On a normal market, we do have supply and demand side. In our case, the supplier use to be the government and the demander the population. None enterprise will only focus all its energy on one side: supply or demand. Each side is consequently evaluated, screened, segmented and targeted at different stage and scale according to the necessities.

Paradoxically, there are economist and scholars assigned to help the poor countries by the design of budget for a sector and suddenly, they only have a look at a 100 % planned supply side and carefully ignoring the demand side, its structure, its specific and hierarchical[673] needs. Ignoring also that each individual has a well and clear established priority in his needs, aspiration and require-

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671 See “Report no. AAA51-BJ, by the World Bank, Human Development Africa Region and the Ministry of Health in Benin, May 2009”.

672 See “Enquête Démographique et de Santé (EDSB-IV) 2011-2012”, Cotonou, Oct. 2013.

673 Theory of Abraham Maslow on individual needs and preference.

ments, and consequently, individual has its own preferences. This is the corner stone, the controversial reality that the supply by itself is not enough to demonstrate what is demanded. Poor people will not use health care services if, the fee for both education and health exceed their possibilities. Poor households are very sensitive to price fluctuations. The conclusion is that the elasticity[674] of demand is higher for the households. The quality of the services, its "value for money" has the same consideration for the poor. Definitively, in a pro-poor strategy, an increase of price for a poor quality services is incompatible with poverty and inequality reduction. A pro-poor strategy adapts the supply to the needs of the concerned at first.

The challenge[675] of the government is to design and to implement institutional participative and sector wide reforms, policies (price and user-charge) and campaigns of conservation and efficiency, legislative frameworks, setting guidelines and incentives for demanders and suppliers in the aim to change behaviours. Furthermore, the government will make the same and important efforts to promote wastewater and sanitation endangering environment and identify the polluting source which will bear the cost. It is today impossible to live in Cotonou along the river at raining season. At least, Benin has the financial possibility to engage technicians with high knowhow from Vienna/Austria drinking water supply state-agency. This will be in the aim to upgrade the colonial artefact of water supply in Benin. Facilitated access to drinking water and sanitation is not already achieved in Benin, although it is directly correlated to health. The situation in Benin becomes a matter of type of water to drink.

8.2.2 Community Health Policies

Keeping in mind that the mission of health is to "improve social and health conditions of the families on the basis of a system integrating the poor and the needy"[676]; to this end, three very detailed specific objectives can be established:

- Ensure access and quality of care through medical services;

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674 For a given increase in prices, their number of visit or school attainment would decrease even twice as much as that of other households, see, "Health, Education and Poverty Reduction" by Christian Morrisson, in OECD POLICY BRIEF no. 19, 2002, p. 15.

675 See ibid., p. 2.

676 See "Enquête Démographique et de Santé (EDSB-IV) 2011-2012.

- Strengthen partnership in access and availability of health services;
- Reach the efficiency of the governance and management of health services resources.

Community Health policies have a formal organization and identified volunteers. At the Ministry of Health, there is a service of Community Health (SSC), responsible for developing and coordinating a network of community liaison (RC). Each town has village volunteers (VV), supervised by coordinators (AC). These community liaisons are usually supervised by the Management Committees of communes and districts. The number of community networks seems low, however, the latter being estimated at about 2,000 people, a *RC for 3.500 inhabitants.* Regular community activities are focused on diseases called "neglected", including the eradication of Guinea worm and vaccination. Clearly, despite the efforts of the SSC, there is no significant national funding for Community-wide and integrated component of a Community policy. Community activities are mainly carried out by vertical programs, including the eradication of Guinea worm. This program has trained a huge number of RC until today. The SSC has developed a national training curriculum, which covers most of the interventions described in the table below, except, once again, nutrition activities.

8.3 Results and Policy: The Incidence of Social Spending on the Poor

Beyond the reinforcement of the various components of the health system, two fundamental principles[677] should guide the transformation of this system: 1) A principle of corporate governance: through decentralization of the health system, health facilities must have their basic needs better taken into account (hence the need for bottom-up planning) and especially as more independent financial administration; and 2) A principle of individual governance: health

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[677] See World Bank in „Republic of Benin - Health, nutrition and population health & poverty analytical report (English)", Africa Region, Human Development & Ministry of Health, Republic of Benin, May 2009, Report No. AAA51 – BJ, 17th November 2016 at 9:05 AM under http://documents.worldbank.org/curated/en/247381468212069765/pdf/AAA510ENGLISH00w020090FINAL0ENGLISH.pdf and also See World Bank in „Benin - Health, Nutrition and Population : Health and Poverty Analytical Report" by Open Knowledge Repository, Washington, DC, 16th November 2016 at 5:45 PM under https://openknowledge.worldbank.org/handle/10986/3207

workers should be strongly encouraged to improve their performance (competence, productivity and compliance of patients).

Given the limited success of measures to strengthen inspections and other controls top-down, these incentives can only come from clients, either directly (i.e., bonuses based on cost recovery). It is important to remain the agenda of Benin (ex Dahomey). The share of the budget allocated to the development of health and education for the poor per capita GDP is almost equal to their share of population. Paradoxically is this share targeted for services and infrastructure of prestige such as university and big Hospital (almost 50 years now) long before most of the time unfinished "Health zone" and "free primary school".

A pro-poor social spending must take into account two factors of decision-making within the households. (i) The average of birth e.g. of children in the households is high. These children can only attaint public over crowned and lacking material schools. (ii) The poor household ability to invest a part of their income into a better education and/or health care is then lower than their part into consumption. The poor are obliged to use the mediocre public services rather than non-poor. This important information is commonly not integrated into the calculation of the national average cost per service. At least, the national specificities, the multitude of concepts and behaviours about education and health added to the numerous education and health services should already convince decision-makers to design and to implement an efficient policy. Otherwise they are going to make their decision on not a valid basis such as GDP investment per capita. For example, poor household[678] will still derive more benefit from basic health centres where they often go and know rather than by anonym hospitals. It is a matter of confidence, of facilitate access and affordability.

Policymakers have to be careful in the data collection and must have the look at who is really benefiting from the investment in the concerned sector rather than manipulate statistic data concerning just an arithmetic national average.

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[678] This assumption is underline by Lanjouw, P. and Ravallon, M. in, "Benefit Incidence, Public Spending Reforms and the Timing of Program Capture" by the World Bank Economic Review, 1999.

To cope to the so-called "adverse selection" by health service delivery as to others about health, Benin applies the *Result Based Financing* (RBF)[679] on the mostly poorest districts and/or those without support from a donor. The chosen regions/departements are surprisingly: Alibori, Atacora, Zou, Oueme and Atlantic. Among these regions are the 8 poorest districts[680]. The chosen districts are divided in 4 districts for control group and 4 for treatment group. In the 8 districts are around 280 facilities but around 200 belong to NGOs and Publics. These 200 (health care centers and hospitals) are the concerned.

In the frame of RBF, the biometric card will facilitate the identification, of the patient, so then later on, used as indicators for incentives[681] such as higher RBF bonuses. The main critic on the system is that the incentives are not performance based but quantity of treated poor and poorest based. After each quarterly, with a strict control of results (indicators), both groups will receive the same financial[682] support proportional to results achieved by all control groups. The support is for following purposes:

– At ≥ 50 % used for purchasing equipment (such as ambulances), drugs, training programs or IEC actions.

– A maximum of 50 % used for paying staff incentives (bonus between 40 % and 80 % on base salary). The aim of this operation is to find out "how far this new approach will improve the whole health system"?

In Fact, a system of measurements and controls were established with different control instances and mechanisms, the amount of RBF credits allocated to the facilities is defined, the modalities of payment of credits designed and at the end, the utilization of the credits.

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679 See "Concept Note for Impact Evaluation of the RBF Pilot in Benin, September 2010", at http://siteresources.worldbank.org/EXTHDOFFICE/Resources/5485726-1334870720628/8597105-1334870833757/Benin_Concept_Note.pdf.

680 Banikoara (in Alibori), Kouandé-Ouassa-Péhunco-Kérou (in Atacora), Covè-Ouinhi-Zangnanado and Bohicon-Zakpota-Zogbodomey (in Zou), Lokossa-Athiémè (in Mono), Adjohoun-Bonou-Dangbo and Porto-Novo-Aguégués-Sèmè-Podji (in Oueme), Ouidah-Kpomassè-Tori-Bossito (in Atlantic).

681 Quoted in "Concept Note for Impact Evaluation of the RBF Pilot in Benin, September 2010", at http://siteresources.worldbank.org/EXTHDOFFICE/Resources/5485726-1334870720628/8597105-1334870833757/Benin_Concept_Note.pdf.

682 See ibid.

System of measurements and controls[683]

Several indicators will be monitored. All indicators[684] will be first measured by health facilities managers over the district health teams (the "EEZS"); and then controlled by various entities such as permanent, independent technical assistants called "district controllers", based in each district and paid by the "M&E" third party; then community-based organizations (CBOs), which are contracted by the "M&E" third party.

Amount of allocated RBF credits[685]

Based on the report (quantitative production) of the facilities first checked by the team of EEZS and "district controllers" for its consistency, then in privacy (random sample of patients at home) checked by members of the community-based organization; the exact amount is calculated for each facility by the *GSM*. In this situation, it is very hard to fake the results.

Modalities of payment of these credits[686]

Each quarterly, each facility will receive directly from the health district (ZS) on its designed account by a Bank, the amount defined by the GSM.

Utilization of the credits[687]

The "Operational Manual of the Project" is the precise using of RBF-credits. Further, only a of the credits can be used for equipment, etc. as already said above. Works and infrastructure or estate or staff recruitment for instance cannot be funded with RBF credits. Decision making on the use of the credits will depend on the type[688] of the facility.

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683 Ibid. and also table 2: Measurement and controls for RBF indicators at the same address.

684 See World Bank in „Concept Note for impact evaluation oft he RBF, Pilot in Benin" September 2010, World Bank, Washington, DC, 17th November 2016 at 9:15 AM under http://siteresources.worldbank.org/EXTHDOFFICE/Resources/5485726-1334870720628/8597105-1334870833757/Benin_Concept_Note.pdf

685 See ibid.

686 See ibid.

687 See ibid.

688 "Some facilities that will be granted, increased management autonomy", so that the facility manager will decide the allocation, after discussions with workers. For the other facilities, the health district officer (MCZS) will decide the allocation" quoted by, "Concept Note for Impact Evaluation of the RBF Pilot in Benin, September 2010", at http://siteresources.worldbank.org/exthdoffice/Resources/5485726-1334870720628/8597105-1334870833757/Benin_Concept_Note.pdf.

Table 36: Measurement and Controls for RBF Indicators

Measurement			**Control**	
	When?	**By who?**	**When?**	**By who?**
Quantitative indicators (19)	Monthly	Health facilities teams	Monthly	Consistency check: EEZS and "district controllers"
			Quarterly	Verification: CBOs
Qualitative indicators	Quarterly	For HC: EEZS and "district controllers" For hospitals: "district controllers" and peers (other hospitals and directorate for hospitals)	Every 6 months (random sample and unannounced visits)	Verification: "District controllers" and CBOs

Source: See Tableau 3.8 Assurance médicale in "Enquête Démographique et de Santé (EDSB-IV) 2011-2012", Cotonou, Bénin, Octobre 2013, p. 79.

8.4 Conclusion

In a narrow focus on the health system in Benin, there are some dysfunction observations that are, generally, ignored. The officials are not ready to say them loud, because of the politisation of the system. At the end, each one makes an arrangement with the established behaviour. Nevertheless, the mentioned problems[689] are following. The goals and expectations are not managed appropriately. There is a failure in management, in application of the laws of operation and law. In fact, the responsibility of transparency and accountability is not met, so the lack of management and control audits opens the door to abuses, corruption and embezzlement of any kind. With the intensive politicization of career and human resources administration, hierarchy loses its value. These shortcomings lead to finally give little value to traditional medicine, great cultural value of health that is lost gradually. In consequence to the territorial division, the health system in Benin has a pyramidal structure. The most important weakness of this structure is the lack of communication and synergy within the pyramid. Moreover, this lack of synergy, collaboration and communication can be extended to different players in the system throughout the organization chart.

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689 See "Evaluation de la Politique de Gestion du Systeme de Sante au Benin: version finale", by Direction Generale de L'Evaluation, Laboratoire d'Appui au Management et des Etudes Novatrices (Laboratoire AMEN), Juillet 2014.

In this logic of things, the consequence is that the management of human resources, material and finance is unfair, wrong and irrational. This management is absolutely not innovative and cannot carry performance. The coordination, cohesion in decisions and cooperation between the public and private sector and with financial and technical operators are duly insufficient despite the well-established working structures. In particular, the establishment of private care provision does not refer to the requirements at the request of a national coverage.

Beyond national coverage in service delivery which is on average 88.3 %, ranging around 71 % and in the Alibori Couffo up to 100 % in Cotonou; at the SSA level, Benin has a good result. It is at the accessibility that major efforts are still needed. Health facilities cover a radius of 7.5 km on average while hospitals are 44.7 km on average.

The health financing in Benin has experienced significant improvements through the access of the poor in particular the efforts of RAMU and indigent funds. If at one time expenses of households were 52 %, they are at 44 % in 2008 with a rapid downward trend. The only problems and weaknesses still to be resolved are: the iniquity, late resource transfer and embezzlement. In addition, there is a lack tool services and divers material, their maintenance and repair. We should also add the chronic shortage of qualified personnel, which is dangerous for the care and interrupts the continuity of care. The staff is very discourteous and unmotivated in the context of poor users. The staff does not fear criteria and laws of functioning and performance review.

There is a relative strength of the health pharmaceutical management. The products are sold to a social cost by CAME. CAME also promotes generics and price controls and product quality.

8.5 Recommendation

Beyond the reinforcement of the various components of the health system, two fundamental principles[690] should guide the transformation of this system:

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[690] See World Bank in „Republic of Benin - Health, nutrition and population health & poverty analytical report (English)“, Africa Region, Human Development & Ministry of Health, Republic of Benin, May 2009, Report No. AAA51 – BJ, 17th November 2016 at 9:05 AM under

- A principle of corporate governance: through decentralization of the health system, health facilities must have their basic needs better taken into account (hence the need for bottom-up planning) and especially as more independent financially administrative;
- A principle of individual governance: health workers should be strongly encouraged to improve their performance (competence, productivity and courtesy).

Given the limited success of measures to strengthen inspections and other controls "top-down", this incentive can only come from clients, either directly (i.e. bonuses based on cost recovery), or preferably indirectly with a mechanism for payment by results funded by the state and potential partners.

Health insurance for the poor is feasible and sustainable. Indirectly as directly, the country will register the positive effects of this insurance time delay in the GDP, national productivity and health status of the population. The still unsolved problem is that of the excluded and poorest. Therefore, the external financial sources and supports will help to encourage the social inclusion of the schemes. CF scheme is somehow the best vector in the management of health and social risks. Further, the demand side is the most important concern for the sustainability of health insurance. "In any case, initiators and managers of health insurance schemes should pay more attention to consumer satisfaction and to people's preferences and perceptions, because these are crucial factors for successful implementation of CBHI"[691].

To conclude with the recommendations[692], we will say that we should:

- Find incentives for the career of the staff through a qualified education and training, through a fair management and administration of human capital, in a rational and meritocratic way.
- Enhance collaboration, coordination, communication and regular consultation meetings with PTFs.

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http://documents.worldbank.org/curated/en/247381468212069765/pdf/AAA510ENGLISH00w020090FINAL0ENGLISH.pdf

691 See "The Emerging Movement of Community Based Health Insurance in Sub-Saharan Africa: Experiences and Lessons Learned" by Doris Wiesmann/Johannes Jütting, in Afrika Spectrum 35, 2000, p. 16.

692 See "Evaluation de la Politique de Gestion du Systeme de Sante au Benin: version finale", by Direction Generale de L'Evaluation, Laboratoire d'Appui au Management et des Etudes Novatrices (Laboratoire AMEN), Juillet 2014.

- Initiate consistency and cohesion in cooperation work between different actors and parallel, initiate the frequency of audits and management control followed by adequate sanctions for the health system.
- Subjecting the healthcare system to competence and responsibility of each employee and, in fact, make transparent and accountable all financial transactions and reporting.
- Make employees respectful of criteria and working laws as well as of performance.
- Exploit the experience and achievements of traditional medicine and indigenous knowledge and promote research in this line.

8.6 The 34 Health Districts (Zones Sanitaires) of Benin

Benin has 34 health districts (Zones Sanitaires) and by the way has decided to implement *Result Based Financing* (RBF[693]) mechanisms. In Benin, a health district has a catchment area covering about 200,000 inhabitants. Each district has at least one referral hospital (i.e. district hospital or "hôpital de zone") assisted by at least a dozen health care centers.

Map 3: Zones Sanitaires of Benin

[693] See World Bank in „Concept Note for impact evaluation oft he RBF, Pilot in Benin" September 2010, World Bank, Washington, DC, 17th November 2016 at 9:15 AM under http://siteresources.worldbank.org/EXTHDOFFICE/Resources/5485726-1334870720628/8597105-1334870833757/Benin_Concept_Note.pdf

Source: Benin Minister of Health, Planning and Statistic Department.

Chapter VII: General Conclusion and Recommendation

1 General Conclusion

This work on Benin aims to demonstrate the importance of the development of human capital in Benin in order to reduce poverty significantly, to ensure the development of the country with growth. The work was made from the premise of Weber - Li and Hang, on the interaction between education, health and income. In the same line, there is a closer connection to G. Myrdal assumption on devil cycle of disease. If we put our arguments (education and health) together, they are the key solution for wealth and growth. The producer of this wealth and growth is the human capital of the country, which has to be healthy and educated.

Benin government has made huge efforts toward education, but it has not put all these efforts on track by determining "Task, Responsibility and Competence" of each operator contributing to improve education. Monitoring system although well-designed, has not, once again, brought the expected results. One of the reasons is the demographical pressure.
On the other side, some useless and contra-productive conflicts of competence and responsibilities occur between different operators (intra officials as with external actors). This is due to the lack of consultation; communication and synergy.
Furthermore, the salary of the teaching´s staff represents a large amount of the education budget. On the other hand, government has to make sure that public resources of education, in the future, will go to the least privileged of the population.
Important was the fact that the primary school is free for all and the secondary I is free for the girls. Immense capital is invested in university education. It is precisely this high education that benefits only the upper richest quintile (Q5) of society. The two lowest quintiles (Q1 and Q2), which also represent the poorest of the country, have very little access to this high education. The country of Benin itself is also not able to employ these graduates of the universities.

Benin is one of the world's poorest countries where industry and technology are still embryonic. Meanwhile, there is a lack of infrastructure, materials and instructors at the vocational secondary I schools, and more at secondary II. The graduates of vocational schools are the basis of industrialization and technology import.

There have also been some efforts in the field of health. As by education, although the government has developed law and reform to promote the health system, the improvement seem to be hard to be implemented. The health system is biased by the failure of management and politicization. Intra-sector, failures such as the responsibility of transparency and accountability that are not meet open the path for abuses, corruption and embezzlement of any kind. The hierarchy loses its value. The medical staff is already very discourteous and unmotivated. Moreover, it does not fear criteria and laws of functioning and performance review, because it knows about the chronic shortage of qualified personnel, which is dangerous for the care and interrupts the continuity of care.

The precaution of the pregnant mother and the mother with child including a free caesarean during the confinement have been established. However, this remains far from adequate for the population.

The country has been divided into 34 health districts (Zones Sanitaires) and has, by the way, implemented Result Based Financing (RBF) mechanisms. In most of the district, the hospitals and centers are under-supplied with material, technological knowledge (management and management) and personnel. Accordingly, only the poorest are used these institutions.

Benin is still having some options. A new budget distribution is necessary. Government funds for the Ministry of Education and the Ministry of Health must be redistributed.

One of the alternative strategy will focus the coordination, cohesion in decisions and cooperation between the public and private sector and with financial and technical operators.

A better re-allocation and increase of this budget will sustain a well-designed program that consolidated health, education and investment plan.

In order to ensure the development of the HC, the focus will be on a first period of 5 years on vocational secondary schools and the literacy of adults. In a second period, emphasis will be placed on upper secondary vocational schools and the consolidation of adult literacy.
A massive publicity for health care and its alternatives across all media in the country should be activated. The health centers are intended to bring offshoots closer to the population in the hinterland. To reduce the costs, a nursing team will provide regularly health care in the sub-centers and suggest alternative medicine. In parallel, a community will promote community based insurance and health care in these sub-center up to the district Hospital.

It is very important to pay attention to the literacy of adult, at least the level of read, write, counting and speak. This level is nearly enough to understand and manage a small business.
Second, law must abolish gender discrimination. Girls will become an apt to become a technician or start a business. In addition, the graduates of the vocational schools and the literacy of adults will facilitate access to micro-credit. The entire education system will be gradually and future-oriented adapted to the economic and industrial state of the country. That mean also that from the primary school, from the bottom up, the necessary specialists are trained according to prognosticated need.
Not only advertising across all media in the country for health prevention and care, but a sophisticated structure of the community that monitors and manages the health centers and sub-centers and insurance is required. At the end, it will be very difficult for the officers to lie in front of eyewitnesses.
Once again, those educated women who have the opportunity to find easier a good job, to earn money, to generate income. Those women have healthier, well-nourished and better-educated family member. Therefore, gender discrimination has to be carefully per law cancelled in public administration, family heritage and private enterprise as in financial transaction.

By developing a healthy and educated Human Capital in the country, one consequently reduces poverty and ensures growth. In turn, this growth can only occur with the HC.

2 Recommendation

In detail, good education and health in principle mean that they (sustainable education and health) lead to the reduction of poverty, the increase in living standards, personal and national welfare. Furthermore, It is necessary to reform the education system and the health system and to reinforce their components(i.e. education level, education form, health and nutrition status, new reallocation and budget amount per level of education and care system, etc..)

The guidelines for these transformations are in the decentralization and deconcentration of both system with an independent bottom-up planning, financial administration and performance controlling. This does not except the system of corporate governance and individual governance. Governance that is based on "Task-Responsibility-Competence-Transparency and Accountability". A system that will focus the meritocracy in form of cash bonus paid every trimester for instance. Other measures to strengthen monitoring, control and inspections will be covered by direct and indirect incentives such as in cash at the end of the month or through a mechanism for payment by results funded. Meritocracy will help to make career in the both system.

All the reforms, programs and efforts that Beninese State has implemented will have positive effects only if, for instance, players in following sectors will participate directly in decisions-making on human capital development:

- Social services and family planning institutions will take care to educate women and girls contraception, maternal and child health, appropriate space between pregnancies and adequate number of children. The purpose of this program is to reduce substantially the population pressure, the infant and maternal mortality, the heredity of poverty, but also to increase living standard and quality of life of the family.
- Educational actors in Benin and those international, to the extent that these actors are participating into the establishment of the National Investment Plan for Education, They are also concerned. They will take care to the educational project, planning, etc… Until then, this investment plan concedes huge sums to the higher education. If we consider that Benin belongs to the poorest coun-

tries, we must have an investment level that matches the level of development. We must therefore bring the attention to the establishment of a solid base of training at the use of development. This involves practical training in the handcraft and small industry.

With the free primary school, population pressure pushes the overcrowding of classes of the elementary education, and consequently overcrowding in classes of junior high school after five years. To these findings add the mass of illiterate adults and children not attending school. We must therefore opt for the supervision of these "illiterate" especially women, giving them literacy and professional future at first. However, the secondary second cycle education should focus on more technical than on general education. Higher education in national universities is meaningful only when it proves a necessity for development.

- The actors of the small finance and "tontine" are also important. After literacy and vocational training for adults and children out of school, they must be given an opportunity to earn income by a creation of employment. The great part of these people will be taken up by the informal economy. This part will need a starting capital / startup. Prior development of microfinance then bear fruit through its financial dealings with the poor. The most concerned in this work belong to the lower poor quintiles (Q1 and Q2), the so-called 40% of the population. Government has to diversify its own sources of capital plus the external financial sources and support to help and to enforce the system of health and education.

Decision-makers should never forget that the demand side is the most important concern for the sustainability of health and education to develop human Capital in Benin.

In the field of health, the education of women and girls is key to achieve a multiplier effect. Regular information campaigns across all national media can surely support these effects.

Furthermore, we must intensively develop mutual health insurance to cover people in rural areas and the poor in the cities. Although originally that kind of assurance comes from the informal sector, the Beninese government can make the effort to train agents and give a better structure to the management and administration of this form of insurance. The importance of this insurance form is

on its social and medical benefits doesn´t matter if it is split into brotherhood, by occupation, gender association, etc.

We have to pay attention to the factor work in the development of the national human capital.

Work is understood as an income generating activity. Due to the poverty, people in Benin survive. However when work is approached in this context, it will still be conditioned by the level of education of the concerned, people health, and their nutritional status.

Government has to develop an emergency plan to “rescue” the poorest of the population. A plan that includes education, health prevention, health care, and nutrition for children and youth. This rescue plan will be settled down within the frame of national infrastructure development project or in the project of high demand of work force.

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Betreff : Eidesstaatliche Erklärung

Sehr geehrte Damen und Herren,

hiermit versichere ich, dass ich die vorliegende Arbeit (Dissertation) selbständig verfasst und keine anderen als die angegebenen Quellen und Hilfsmittel verwendet habe.

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